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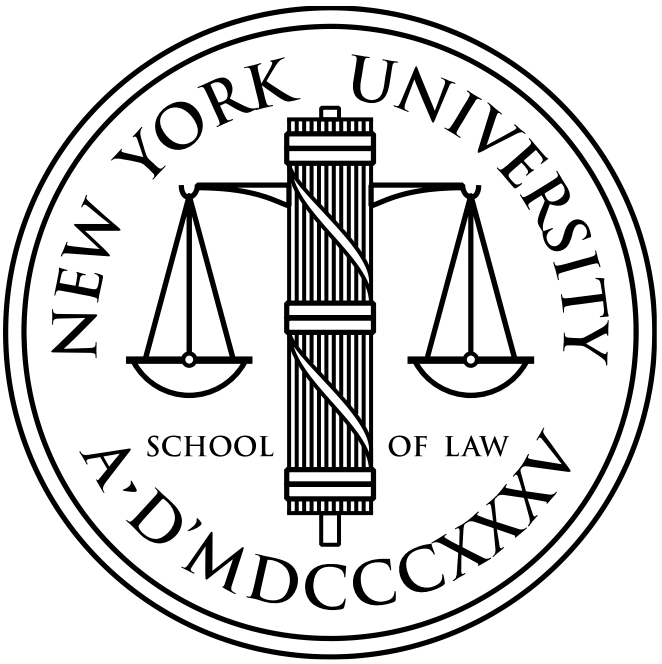

Statement of Purpose

Consistent with its unique development, the New York University Journal of Intellectual Property & Entertainment Law (JIPEL) is a nonpartisan periodical specializing in the analysis of timely and cutting-edge topics in the world of intellectual property and entertainment law. As NYU's first online-only journal, JIPEL also provides an opportunity for discourse through comments from all of its readers. There are no subscriptions or subscription fees; in keeping with the open-access and free discourse goals of the students responsible for JIPEL's existence, the content is available for free to anyone interested in intellectual property and entertainment law.

The *New York University Journal of Intellectual Property & Entertainment Law* is published up to three times per year at the New York University School of Law, 139 MacDougal Street, New York, New York, 10012. In keeping with the Journal's open access and free discourse goals, subscriptions are free of charge and can be accessed via www.jipel.law.nyu.edu. Inquiries may be made via telephone (212-998-6101) or electronic mail (law.jipel@gmail.com).

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A nonpartisan periodical, the Journal is committed to presenting diverse views on intellectual property and entertainment law. Accordingly, the opinions and affiliations of the authors presented herein do not necessarily reflect those of the Journal members.

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PREFACE

Despite Indigenous Peoples' long struggle for sovereignty over their lands, they are often excluded from conversations focused on their "data sovereignty." In response, the Indigenous Data Sovereignty, or IDSov, movement has emerged to recognize the fundamental rights and interests of Indigenous Peoples relating to the collection, ownership and stewardship of data relating to their communities, knowledge and lands. The multifaceted nature of IDSov gives rise to a broad spectrum of legal and ethical concerns, from data storage, ownership, consent and access, to intellectual property rights and other considerations about how data are used in research, policy and practice.

This year, JIPEL's Annual Spring Symposium focused on IDSov. The event was held in collaboration with the Equity for Indigenous Research and Innovation Coordinating Hub (ENRICH), co-directed by Jane Anderson (NYU) and Māui Hudson (University of Waikato), and the NYU Engelberg Center on Innovation Law and Policy. The symposium was organized around four panels: IDSov and Tribal Codes (I), Government Agencies and IDSov (II), Labels as a Technical Protection Mechanism (III), and Fair Use and IDSov (IV), and recordings of the event can be found on our website (https://jipel.law.nyu.edu/symposium/). The symposium was hosted entirely over Zoom between two sessions (I-II; March 1, 2023, III-IV; March 2, 2023, Eastern Standard Time) so as to accommodate speakers from across the globe. The symposium brought together scholars from a diversity of fields and perspectives, including Indigenous community leaders, as well as experts in law, public policy, medicine, global health, human genomics, anthropology, sociology, management and marketing. Following each of the four themed sessions, a roundtable discussion with invited speakers was moderated by a member of the NYU law faculty.

This year's Special Issue — Volume 12, Issue 3 — compiles the proceedings of the 2023 Symposium, and includes original works of scholarship from several participants in the event.

Sincerely,

Jacob Golan, Ph.D.
Editor-in-Chief
NYU Journal of Intellectual Property & Entertainment Law

INTRODUCTORY NOTE

Indigenous Data Sovereignty has emerged in recent years as an important contribution to discourse at the intersection of ethics, digital rights, and Cultural Intellectual Property Rights. Data has become the new gold, a frontier for exploration and exploitation. Digitisation initiatives and open data movements are turning Information and knowledge into global resources to be accessed and used by anyone with an internet connection.

Ethical and legal concerns about the open approach to data, its impact on privacy and intellectual property rights, has been exacerbated by Artificial Intelligence platforms, like ChatGPT, which use multiple data sources to construct their outputs without clear provenance or attribution. The appropriation of data is considered a misappropriation of knowledge by many Indigenous communities and contributes to their desire for greater Indigenous control of Indigenous data.

Indigenous Data Sovereignty recognizes the fundamental rights and interests of Indigenous Peoples relating to the collection, ownership and stewardship of data relating to their communities, territories and knowledges. The multifaceted nature of IDSov gives rise to a broad spectrum of legal and ethical concerns spanning data storage, ownership, consent and access, intellectual property rights and other considerations about how Indigenous data are used in research, policy and practice.

Two key themes of the Indigenous Data Sovereignty movement are data for governance and governance of data. By improving Indigenous access to data and Indigenous participation in governance of data Indigenous communities can direct towards informed decision-making and deriving direct benefits from the multiple uses of Indigenous data.

The Indigenous Data Sovereignty Symposium was held by JIPEL in collaboration with the Equity for Indigenous Research and Innovation Co-ordinating Hub in Lenapehoking (New York City). ENRICH was established in 2019 as a collaboration between NYU and the University of Waikato in Aotearoa and was developed to support the development of Indigenous based protocols, Indigenous centered standard setting mechanisms, and machine-focused technology that inform policy and research practices, push for institutional change and reform relationships between Indigenous communities and wider society. ENRICH and the Engelberg Center on Innovation Law and Policy (NYU Law) provided a space to explore how Indigenous Data Sovereignty is being expressed across different domains, and this special proceedings brings together insightful contributions from the speakers.

Each paper presented here explores issues that arise in the context of Indigenous Data Sovereignty. These range from the development of Tribal Codes and Policy around data sovereignty from an Indigenous community perspective, to the development of standards for the Provenance of Indigenous Peoples' Data; to new policy guidance like the CARE Principles for Indigenous Data Governance alongside practical mechanisms like Traditional Knowledge and Biocultural Labels and Notices developed by Local Contexts. Other papers address economic value and benefit sharing as well as how existing legal tools like Technical Protection Mechanisms (TPMs) could be used to serve Indigenous interests in data control and governance.

In recognizing the inherent sovereign rights that Indigenous Peoples hold and should retain over data, the imperative of Indigenous Data Sovereignty connects to other Indigenous rights movements including the return of stolen lands and waters, rematriation of cultural materials within museums, archives and libraries and expectations for fair and equitable benefit sharing in the context of genetic resources.

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DATA IS A *TAONGA*: AOTEAROA NEW ZEALAND, MĀORI DATA SOVEREIGNTY AND IMPLICATIONS FOR PROTECTION OF TREASURES

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Sovereignty, and how Indigenous people interpret sovereignty, matter in relation to data. There have been persistent claims and counter-claims as to what constitutes Indigenous sovereignty, both in international agreements and national legal cases. To understand the complex nature of Indigenous data sovereignty claims requires framing within precepts such as the Doctrine of Discovery, which enabled appropriations of Indigenous land and possessions, and embedding terra nullius*, or that land belonged to no one and hence was free for others' use and ownership. Such "fictions" of Crown sovereignty over land has a contemporary corollary in* datum nullius*. Hence, Indigenous people are seeking to assert their enduring relationships to their tangible and intangible properties, possessions and treasures as these are transformed into data.*

To examine this in more depth, Indigenous Māori claims to their treasured possessions or taonga are examined through reference to the findings of two cases brought to Aotearoa New Zealand's Treaty of Waitangi Tribunal. The Tribunal is a permanent commission of enquiry into Crown (State) actions and omissions in relation to the Treaty of Waitangi, signed between the Crown and some Māori tribes in 1840. Along with the policy implications of these findings, there is an overview of how Māori data sovereignty is being implemented at State institutional levels. Finally, there is a brief

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examination of how the author's tribe of Ngāi Tahu might implement data sovereignty through a case study of a taonga as it transfers from its biophysical form to data.

INTRODUCTION

Issues of sovereignty are deeply ingrained in settler colonial nations like Aotearoa New Zealand. Some Indigenous scholars argue that the Doctrine of Discovery, outlined in 1823 by Chief Justice Marshall of the United States Supreme Court in *Johnson v. McIntosh*,[1] continues to be an underlying backdrop to policies and laws that affect Indigenous groups in Canada, Australia, New Zealand and the United States (the CANZUS nations).

Why should the Doctrine of Discovery matter to Indigenous claims of sovereignty in relation to data? After all, local policies and laws in CANZUS nations are often designed to take into account Indigenous land, resource and property rights following international conventions and declarations such as the Indigenous and International Labour Organisation (ILO) Tribal Peoples Convention, 1989 (No. 169) and the 2007 United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Although these documents have either not been ratified universally (ILO 169) or only have a "moral" force (UNDRIP), their assertions have found their way into procedures to guide the behaviour of industry and nation alike: consultation; free, prior and informed consent (FPIC); compensation; Indigenous management of resources; and benefit sharing. While this is welcome, both these documents make clear that sovereignty is the preserve of the nation state. And yet, sovereignty is the very thing that is contested. Sovereignty and how Indigenous people interpret sovereignty matter.[2]

[1] Johnson & Graham's Lessee v. McIntosh, 21 U.S. 543 (1823); *see also* Kent McNeil, *The Doctrine of Discovery Reconsidered: Reflecting on Discovering Indigenous Lands: The Doctrine of Discovery in the English Colonies*, 53 OSGOODE HALL L.J. 699, 700 (2016).

[2] SOVEREIGNTY MATTERS: LOCATIONS OF CONTESTATION AND POSSIBILITY IN INDIGENOUS STRUGGLES FOR SELF-DETERMINATION (Joanne Barker ed., 2005).

This study is going to examine what is meant by Indigenous sovereignty and its importance in relation to Indigenous claims to data sovereignty. To do this, I will first examine the mechanisms by which CANZUS nations appropriated Indigenous lands through the "fiction" of Crown sovereignty and *terra nullius*,[3] that is, the Doctrine of Discovery. Some scholars view that the fiction of *terra nullius* finds its data corollary in *datum nullius* – "a blank slate on which could be constructed the edifice of a distorting 'colonial archive.'"[4]

I will then consider how such understandings play out in relation to Māori claims to their *taonga*, or treasured possessions, through a discussion of Te Tiriti o Waitangi (Te Tiriti)/Treaty of Waitangi, signed between representatives of the British Crown and some iwi (tribes). *Te Tiriti* is considered to be Aotearoa's founding constitutional document. This will involve an analysis of what is meant by *taonga* in relation to *Te Tiriti*. From here, I examine two findings from the Waitangi Tribunal, which is a permanent Commission of Enquiry that investigates and makes recommendations on claims brought by Māori in relation to actions or omissions of the State that breach *Te Tiriti*.[5] These findings are pertinent to issues of Māori data sovereignty, in particular in relation to Māori interest, control and protection of Māori knowledge, inherent in *taonga*.

In the next section, I look at some of the policy implications of these findings, explaining how these have impacted on the State's behaviour. I then take a brief overview of how Māori data sovereignty is being implemented at an institutional level. Finally, I briefly examine how the author's tribe of Ngāi Tahu might implement data sovereignty through a case study of a taonga as it transfers from its biophysical form to data.

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[3] John Borrows, *The Durability of* Terra Nullius*: Tsilhqot'in Nation v. British Columbia*, 48 U.B.C. L. Rev. 701 (2015).

[4] Diane E. Smith, *Governing Data and Data for Governance: The Everyday Practice of Indigenous Sovereignty, in* Indigenous Data Sovereignty: Toward an Agenda 117, 121 (Tahu Kukutai & John Taylor eds., 2016).

[5] *About the Waitangi Tribunal*, N.Z. Ministry of Just. (Feb. 12, 2023), https://waitangitribunal.govt.nz/about/.

I

The Doctrine of Discovery

> We are thus faced with a situation today where the Crown exercises de facto sovereignty and claims de jure sovereignty domestically and internationally, while Indigenous nations have de jure sovereignty under their own systems of law and demand acknowledgement of their sovereignty . . .[6]

In the nineteenth century, there were massive transfers of land from Indigenous peoples to settler states across all the CANZUS nations.[7] The Doctrine of Discovery that facilitated such transfers asserted that Indigenous peoples' lands, and hence resources, were acquired, not through conquest or cession of lands but through the "so-called discovery doctrine" outlined in 1823 by Chief Justice Marshall of the United States Supreme Court in *Johnson v. McIntosh*.[8] This case continues to set a precedent in the four CANZUS countries in devising and developing laws and policies in relation to Indigenous peoples' land and resource rights.[9] To summarise, the Doctrine holds that when a European, Christian nation discovered new lands, it automatically gained sovereignty and property rights over Indigenous nations and peoples. While Indigenous sovereign rights as independent nations were not entirely disregarded, they were "diminished," as Indigenous people no longer had power to dispose of land to anyone except the "discoverer" who was given exclusive title. This exclusive discovery right was also considered to have given the "discoverer" sovereign powers over the Indigenous peoples and their governments. Native governments were restricted in their international political and commercial relationships as they could deal solely with their discoverer. This transfer of sovereign rights was done without the knowledge or consent of the Indigenous peoples or their governments.[10]

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[6] McNeil, *supra* note 1, at 727.

[7] *See, e.g.*, Kaius T. Tuori, *The Theory and Practice of Indigenous Dispossession in the Late Nineteenth Century: The Saami in the Far North of Europe and the Legal History of Colonialism*, 3 Compar. Legal Hist. 152 (2015).

[8] McNeil, *supra* note 1, at 700.

[9] *See generally* Robert J. Miller et al., The Doctrine of Discovery in the English Colonies (2010).

[10] *Id.* at 3-5.

That the Doctrine continues to have a place in law and policy of the CANZUS nations seems astounding, and yet it remains the case. For example, in 2005 the United States Supreme Court in *City of Shemill v. Oneida Indian Nation* observed that under the Doctrine of Discovery, Indian lands became vested in the sovereign — first the discovering European nation and then the original States and the United States.[11] Moreover, while Indian tribes may occupy their lands, and even use and enjoy their surface and mineral resources, this is viewed as a "limited possessory right: possession without ownership, and possession without complete power of disposition."[12]

In New Zealand, the Doctrine of Discovery continues "to haunt contemporary legal and political reasoning."[13] As in the United States, the title of the Crown to land was said to be have been acquired by "discovery," with Indigenous Māori described by Justice Prendergast in *Wi Parata v. Bishop of Wellington* (1877) as incapable of performing the duties of a civilised community.[14] Despite this, more recent legislation has rolled back such ideas, with various judgments affirming native or customary rights. Most significantly is the 2003 *Ngati Apa* decision,[15] which confirmed that Māori may still have ongoing ownership rights in the foreshore and seabed.[16] The suggestion that this might be the case saw the government of the day immediately assert its sovereignty to pass legislation to vest such land in the Crown, thus undermining the *Ngati Apa* decision.[17]

In Australia, the legal fiction of *terra nullius* and the idea that the land was effectively free for others to claim ownership "erased the very existence of indigenous peoples as self-organizing social and political societies."[18] The fiction persisted well into the twentieth century, and while overturned by the Australian Court High in the *Mabo (No. 2)* case, its legitimating principle remains embedded

[11] City of Shemill v. Oneida Indian Nation, 544 U.S. 197, 203 n.1 (2005).

[12] Blake A. Watson, *The Doctrine of Discovery and the Elusive Definition of Indian Title*, 15 Lewis & Clark L. Rev. 995, 1019 (2011).

[13] *See* Miller et al., *supra* note 9, at 227.

[14] *Wi Parata v. Bishop of Wellington* (1877) NZLR 3 SC 72.

[15] *Ngati Apa v. Attorney-General* (2003) 3 NZLR 643 (CA).

[16] *See generally* Valmaine Toki, *Rights to Water an Indigenous Right?*, 20 Waikato L. Rev. 107 (2012).

[17] *See, e.g.*, Christian N. Siewers, *Balancing a Colonial Past with a Multicultural Future: Maori Customary Title in the Foreshore and Seabed after* Ngati Apa, 30 N.C. J. Int'l L. 253 (2004).

[18] Robert Nichols, *Indigeneity and the Settler Contract Today*, 39 Phil. Soc. Criticism 165 (2013).

in Australian law and policy.[19] Likewise it may be argued that *terra nullius* remains a feature of Canadian legislation, where although the Supreme Court has stated that *terra nullius* never applied to Canada, the same Court has likewise stated that on assertion of European sovereignty, the Crown acquired radical or underlying title to all lands in the provinces. As Burrows notes, such a statement makes no sense without some version of *terra nullius*; even in ground-breaking decisions on native title, such as the 2014 *Tsilhqot'in Nation v. British Columbia*, *terra nullius* and the Doctrine of Discovery persist.[20]

As the quotation that begins this section identifies, Indigenous people across the CANZUS nations continue to see themselves as having *de jure* sovereignty under their own systems of law even as the nation state reserves and continues to legislate such sovereignty for itself, reframing the practice of the Doctrine of Discovery even while disavowing it in words.[21] Thus, when it comes to local policy and law, it should be no surprise that Indigenous people continue to question and contest CANZUS state claims to permanent sovereignty over resources, given that "story, songs and stories of spirit-law, were always embodied in land, the greater natural world and universal order of things."[22] As Watson reiterates, Indigenous people and land "are one."[23]

Sovereignty lies at the heart of the Doctrine of Discovery. Public discourse in CANZUS nations often conceives of sovereignty as unitary and indivisible: the "one nation," described by Tully as the "Empire of Uniformity."[24] Whenever it is brought into public consciousness that there might be "multiple and overlapping sovereignties,"[25] often the CANZUS states will swiftly shut down such claims. However, while both public and politician continue to conceive of sovereignty as unitary, recent understandings and practices reveal a more nuanced and perhaps

[19] *See, e.g.*, Irene Watson, *The future is our past: We once were sovereign and still are*, 40 INDIGENOUS L. BULL. 12 (2012).

[20] *See* Borrows, *supra* note 3.

[21] *See* Margaret Mutu, *Behind the Smoke and Mirrors of the Treaty of Waitangi Claims Settlement Process in New Zealand: No Prospect for Justice and Reconciliation for Māori Without Constitutional Transformation*, 14 J. GLOB. ETHICS 208 (2018).

[22] Irene Watson, *Buried Alive*, 13 L. & CRITIQUE 253, 254 (2002).

[23] *Id.* at 256.

[24] JAMES TULLY, STRANGE MULTIPLICITY: CONSTITUTIONALISM IN AN AGE OF DIVERSITY 58–98 (1995).

[25] Paul Keal, *Indigenous Sovereignty*, *in* RE-ENVISIONING SOVEREIGNTY: THE END OF WESTPHALIA? 315–16 (Trudy Jacobsen, Charles Sampford & Ramesh Thakur eds., 2008).

more promising pathway to understand and then actualise sovereignty, including in relation to Indigenous claimed data.

First, when sovereignty is used in the context of Indigenous people, it is always in a relational sense. That is, who does or does not have sovereignty in relation to the "other" and what type of sovereignty the "other" has. In the CANZUS nations, the common law of England through the Doctrine of Discovery, was imported into these nations,[26] and consequently, ideas about sovereignty were and continue to be framed by the non-Indigenous. More recent Indigenous thought, following mid-twentieth decolonisation thinkers like Franz Fanon,[27] views calling for Indigenous sovereignty as a waste of time better spent on more authentic approaches to autonomy,[28] perhaps even pathological given the continued reliance on a non-Indigenous viewpoint.[29] While this may be true, as the previous section showed, sovereignty continues to be contested by Indigenous groups, both within nations and internationally.[30]

Perhaps one of the best ways to understand the dimensions of sovereignty from an Indigenous perspective is to reflect on the arguments that accompanied the development of the UNDRIP. Erueti has argued that many of the articles of the UNDRIP such as the right to self-determination, self-government, the right to free, prior, and informed consent (FPIC), and the right to the recognition, observance, and enforcement of treaties were based on anti-colonialism arguments advanced by indigenous people from CANZUS nations.[31] Compromises were made to the Declaration towards matters of culture, consultation, and land rights to accommodate the needs of Indigenous groups in Africa, South America and Asia who were struggling for fundamental human rights. As Erueti argues:

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[26] *See* Paul McHugh, Aboriginal Societies and the Common Law: A History of Sovereignty, Status, and Self-Determination (2004).

[27] *See, e.g.*, Frantz Fanon, Black Skin, White Masks (Charles L. Markmann trans., 1986).

[28] *See* Jeff Corntassel, *Re-envisioning Resurgence: Indigenous Pathways to Decolonization and Sustainable Self-determination*, 1 Decolonization 86 (2012).

[29] Glen S. Coulthard, Red Skin, White Masks: Rejecting the Colonial Politics of Recognition (2014).

[30] *See* Kirsty Gover, *Settler–State Political Theory, 'CANZUS' and the UN Declaration on the Rights of Indigenous Peoples*, 6 Eur. J. Int'l. L. 345 (2015).

[31] Andrew Erueti, *The Politics of International Indigenous Rights*, 67 U. Toronto L.J. 569 (2017).

> The decolonization model speaks to a nation-to-nation relationship between Northern indigenous peoples and CANZUS states, whereas a human rights model applies, and in fundamental ways depends on, existing configurations of state power.[32]

Culture, consultation and land rights have been described as the "soft" edge of the claims by Indigenous people against settler States,[33] as opposed to the more challenging claim to inherent sovereignty with the final authority (*imperium*) to exclusively own, use and distribute the benefits of resources (*dominium*) that accompanies such sovereignty. As Erueti and others make clear,[34] nation-states have been willing to negotiate *dominium* or limited and proscribed private property rights but have refused to countenance *imperium* and Indigenous peoples "independent, territorial monopoly of political power."[35] It is worth teasing out this distinction between *imperium* and *dominium*, or "the question of the relationship of rule (or sovereignty) and that of property."[36] As McHugh argues, Indigenous people did not distinguish issues of *imperium* from those of *dominium*.[37] Thus, Indigenous people do not just claim ownership of land and the resources therein but also claim legal, political and philosophical rights to shape debates about sovereignty.[38] As I will show in relation to Māori data sovereignty, such shaping has applied when it comes to data sovereignty.

While CANZUS states have been willing to settle injustices through governance (*dominium*) over land areas, this merely reinforces the unwillingness to countenance that land claims are not merely about the "historical" or originating injustice, but rather about an ongoing occupation. To exemplify this, Nicholls cites the U.S. Supreme Court's decision in *City of Sherrill, New York v. Oneida Indian Nation of New York*. The Court likened the Oneida attempt to reassert sovereignty

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[32] *Id.* at 584.

[33] Sheryl R. Lightfoot, *Emerging International Indigenous Rights Norms and 'Over-Compliance' in New Zealand and Canada*, 62 Pol. Sci. 84 (2010). *See also* Karen Engle, The Elusive Promise of Indigenous Development: Rights, Culture, Strategy (2010).

[34] *See, e.g.*, Siegfried Wiessner, *Rights and Status of Indigenous Peoples: A Global Comparative and International Legal Analysis*, 12 Harv. Hum. Rts. J. 57 (1999).

[35] James Tully, *The Pen Is a Mighty Sword: Quentin Skinner's Analysis of Politics*, *in* Meaning and Context: Quentin Skinner and His Critics 17 (James Tully ed., 1988).

[36] Nichols, *supra* note 18, at 175.

[37] *See* McHugh, *supra* note 26, at 62.

[38] *See* Nichols, *supra* note 18, at 175

over recently purchased land to the exclusion of the City of Sherrill as an effort to ”rekindl[e] embers of sovereignty that long ago grew cold.” [39] In other words, even though the wrongs to the Oneida may, as Justice Ginsberg stated, have been “grave,” they were also “ancient” and therefore, despite the Oneida now owning such property, their sovereign and exclusive rights could not be countenanced. Nicholls argues that such cases are evidence of how liberal nations ”ratchet” up their dominance, creating an ever-increasing stranglehold over Indigenous people and lands, while correctly and even sympathetically applying regulation that is foundationally inimical to other forms of nation-nation relations.[40]

To conclude this section, the Doctrine of Discovery continues to shape how governments, policy-makers, and Indigenous people think of sovereignty. In CANZUS nations, limited or ’soft’ forms of sovereignty (*dominium*) have become the default setting for sharing limited forms of power. It is against such sovereignty arguments that I now turn to the particular matter of Indigenous data sovereignty and its policy implementation in Aotearoa New Zealand. But first, I provide a brief overview of Aotearoa New Zealand’s constitutional arrangements set in place by the Treaty of Waitangi, and the place of *taonga* within these arrangements.

II

Te Tiriti o Waitangi / Treaty of Waitangi and *Taonga*

The Treaty of Waitangi, or *Te Tiriti o Waitangi* as it now increasingly is called in the Māori language, was signed in 1840 between representatives of the British monarchy (the Crown) and some Māori tribal leaders. It is sometimes referred to as Aotearoa New Zealand’s founding document.[41] However, matters of sovereignty had already been addressed by the earlier 1836 “He Whakaputanga o te Rangatiratanga o Niu Tirene (He Whakaputanga): Declaration of Independence of the United Tribes of New Zealand,” developed by Māori chiefs mostly from northern tribes that declared all sovereign power and authority was held by the chiefs.[42] With increasing settlement of the country, with British settlers

[39] City of Sherrill v. Oneida Nation of N.Y., 544 U.S. 197, 214 (2005).

[40] Nichols, *supra* note 18, at 180-81.

[41] Giselle Byrnes, *“Relic of 1840” or Founding Document? The Treaty, the Tribunal and Concepts of Time*, 1 Kotuitui: N.Z. J. Soc. Sci. Online 1 (2006).

[42] *See* Mānuka Hēnare, He Whenua Rangatira: A Mana Māori History of the Early-Mid Nineteenth Century (2021).

increasingly 'disorderly', and with other nations, such as the French, having their own territorial ambitions, the British went about developing more comprehensive constitutional arrangements.[43]

Te Tiriti o Waitangi was a dual language document but the English and Māori versions were not translations of one another. Consisting of three key clauses, the Māori language version signed by most tribal leaders stated that Māori would retain *tino rangatiratanga* (sovereignty) over their lands and treasures (i.e., *taonga*) but gave *kāwanatanga* (governance) rights to the British Crown. In contrast, the English version states that Māori ceded sovereignty but retained full exclusive and undisturbed possession of their lands, estates, forests, fisheries and other properties.[44] If we reflect on McHugh's argument,[45] we see here, in the very genesis of Aotearoa New Zealand constitutional arrangements, the problem: *imperium* and *dominum* intertwined in the Māori version, but divorced in the English translation. This contrasts with the 1836 He Whakaputanga declaration where *imperium* was reserved to Māori. Unsurprisingly, the dual notions of sovereignty and what was agreed to has been a matter of interpretation, activism and litigation since that time.

While Te Tiriti has been honoured more in the breach than in its observance, with violations of Te Tiriti lodged as early as 1849 by the author's own tribe,[46] since the 1970s the document has been given more serious consideration in Aotearoa New Zealand's constitutional arrangements. This has been due to a mix of reasons including the post-colonial Indigenous rights movement that in New Zealand took the form of direct action and sovereignty protests.[47] In 1975 under an Act of Parliament the Waitangi Tribunal was formed to examine Te Tiriti breaches. Over the years, the Tribunal has developed Treaty principles that should inform State decision-making. These principles include active protection of taonga (treasures), partnership, the duty to consult, the right to development, and the

[43] *See* Billie J. Lythberg, Jamie Newth & Christine R. Woods, *Engaging Complexity Theory to Explore Partnership Structures: Te Tiriti of Waitangi/The Treaty of Waitangi as a Structural Attractor for Social Innovation in Aotearoa-New Zealand*, 18 Soc. Enterprise J. 271 (2022).

[44] *See* Hēnare, *supra* note 42.

[45] *See* McHugh, *supra* note 26.

[46] Tipene O'Regan, Lisa Palmer & Marcia Langton, *Keeping the Fires Burning: Grievance and Aspiration in the Ngai Tahu Settlement*, *in* Settling with Indigenous People: Modern Treaty and Agreement-Making 44 (Marcia Langton ed., 2006).

[47] *See* Erueti, *supra* note 31.

recognition of self-determination.[48] These principles have found their way into various government policies and Te Tiriti itself increasingly is referenced in law, with decision-makers required to consider its intent.[49]

At this point, it is worthwhile to reference some meanings of taonga from a Māori perspective. Taonga are key to understanding Māori claims to data sovereignty as distinct to other, nation-based notions of data sovereignty.

A simple definition of taonga is "property" or "anything highly prized,"[50] while a more comprehensive, legal definition defines taonga as "both tangible, such as *mere* and *heitiki* (greenstone weapons and ornaments), and intangible, such as language and knowledge. They belong to a descent group but at any given time are held by individuals on its behalf, in trust for future generations."[51] Craig, Taonui and Wild, through reference to various legal findings, go onto distinguish taonga that fall into the tangible and intangible cultural categories: land, natural resources, sacred places, canoes, meeting houses (tangible); Māori language, *tikanga* (customary principles and practices) and stories and oral traditions (intangible). Into the latter category also fall concepts such as *mauri* (life essence), as the *mauri* of a tangible resource derives from its genealogy or *whakapapa* that links the intangible to the tangible, with all animate and inanimate things descending from Rakinui (Skyfather) and Papatūānuku (Earthmother) and their children. A key attribute is that taonga are relational, not just to an individual, but to the collective, and as such there is a duty of care and obligation to future generations.[52] That is, current generations act as *kaitiaki*, or guardians, of taonga, specifically the *mātauranga* Māori (Māori knowledge) imbued in taonga. This latter point has become particularly pertinent in relation to data, as I will discuss shortly.

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[48] *See* Byrnes, *supra* note 41.

[49] Jacinta Ruru & Jacobi Kohu-Morris, *'Maranga Ake Ai' The Heroics of Constitutionalising Te Tiriti O Waitingi/The Treaty of Waitangi in Aotearoa New Zealand*, 48 Fed. L. Rev. 556 (2020).

[50] *Cf.* Herbert W. Williams, A Dictionary of the Maori Language (1971).

[51] Russell Craig, Rawiri Taonui & Susan Wild, *The Concept of Taonga in Māori Culture: Insights for Accounting*, 25 Acct. Auditing Accountability J. 1025, 1028 (2012) (quoting Justice Gendall in *Temple v. Barr and Holborn* [2010] NZHC 1476 (HC)).

[52] *Id.*

When it comes to the nature of ownership and protection of *taonga*, a claim known as the "indigenous flora and fauna and cultural and intellectual property" claim (i.e., Wai 262), was put forward to the Waitangi Tribunal in 1991. The claimants sought recognition and protection of *tino rangatiratanga* (sovereignty and self-determination) over *mātauranga* Māori, and Indigenous flora and fauna including genetic material.[53] Eventually, in 2011, the Tribunal found that the government had not complied with "its obligations under the Treaty of Waitangi to ensure that guardian relationships between Māori and taonga were acknowledged and protected."[54] Key findings included that:

- *kaitiakitanga* and property rights are different ways of thinking about the ways different cultures decide the rights and obligations of communities in their created works and valued resources;

- the balance of intellectual property rights should be struck in favor of protecting the cultural integrity of *mātauranga* Māori taonga works, and the Māori elements of taonga-derived works; and

- while Māori have no proprietary rights in taonga species, the cultural relationship between *kaitiaki* and taonga species is entitled to reasonable protection.

The Tribunal made several recommendations that included changes to government intellectual property, laws, policies and practices relating to indigenous flora and fauna, resource management, conservation, the Māori language, arts and culture, heritage, science, education, health, and the making of international instruments.[55]

Geismar argues that the Tribunal's findings are radical in that they challenged the State to incorporate Māori concepts of *tino rangatiratanga* (sovereignty) and *kaitiakitanga* (guardianship) into its economy as well as its governance

[53] Maui Solomon, *An Indigenous Perspective on the WIPO IGC*, *in* The WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore 219, 228 n.25 (Daniel F. Robinson, Ahmed Abdel-Latif & Pedro Roffe eds., 2017).

[54] Barbara Sullivan & Lynell Tuffery-Huria, *New Zealand: Wai*, 9 J. Intell. Prop. L. & Prac. 403 (2014).

[55] Te Puni Kōkiri, Wai 262 – Te Pae Tawhiti: the Role of the Crown and Māori in Making Decisions About Taonga and Mātauranga Māori: Preliminary Proposals for Crown Organisation (2019).

arrangements.[56] By doing so, the absolute *imperium* of the New Zealand government is being modified while at the same time broadening the boundaries of Māori authority. Some have argued that this might be seen as *Lex Aotearoa*, an evolving type of law where the first law of Aotearoa New Zealand (Māori systems of governance) is modifying the current legal frameworks based on British law and hence are creating a new system of power distribution.[57]

The government's policy response to the Tribunal's recommendations has been slow, and it was only in 2019 that any government activity started to deal with issues of *mātauranga* Māori and taonga works; *mātauranga* Māori and taonga species; and international aspects of *mātauranga* Māori, taonga works and taonga species.[58]

However, since the time of the initial Wai 262 claim in 1991 and the findings in 2011, notions of taonga have broadened to incorporate the data about such taonga. And more recently, discussions have focused on Aotearoa New Zealand's mechanisms to ensure that *kaitiaki* are able to protect or control use of taonga when the knowledge or *mātauranga* about or derived from taonga has been transformed into data residing in a myriad of data storage facilities in commercial and State-owned institutions in Aotearoa New Zealand and internationally. In turn, this raises issues of Indigenous and Māori data, and increasingly, data infrastructure sovereignty.

III

Māori Data Sovereignty – Policy and Practice

> While indigenous peoples have long claimed sovereign status over their lands and territories, debates about 'data sovereignty' have been dominated by national governments and multinational corporations focused on issues of legal jurisdiction. Missing from those conversations have been the inherent and inalienable rights and interests of indigenous

[56] Haidy Geismar, *Resisting Settler-Colonial Property Relations? The WAI 262 Claim and Report in Aotearoa New Zealand*, 3 Settler Colonial Stud. 230 (2013).

[57] *See* Ruru & Kohu-Morris, *supra* note 49.

[58] Jayden Houghton, *The New Zealand Government's Response to the Wai 262 Report: The First Ten Years*, 25 Int'l J. Hum. Rts. 870 (2021).

> peoples relating to the collection, ownership and application of data about their people, lifeways and territories.[59]

Scholars have noted that discourses of sovereignty in relation to the digital are not new, with notions such as 'technological sovereignty,' 'cyberspace sovereignty' and 'digital sovereignty' found since the 1960s.[60] There is no one definition of data sovereignty, but issues of control and power over data at the individual, collective or nation level predominate. Hummel et al., for example, found that discourses of Indigenous data sovereignty provided rich and innovative aspects only touched on or not found in other discourses.[61] This included the link between data sovereignty and Indigenous culture and identity; data sovereignty as continuous with Indigenous nationhood; discussion not only of control of data, but also governance and the harnessing of benefit; and discussions on asymmetries of power. As the quote that begins this section indicates, Indigenous data sovereignty touches on all aspects of Indigenous life. And as the discussion of taonga in the previous section has shown, the tangible and intangible are interrelated components that bind things to each other, people and land. In this section, I briefly look at how Māori notions of taonga have translated into the concept that data too is a taonga and how that has affected Aotearoa New Zealand's policy, and by implication, notions of sovereignty.

The call for Māori data sovereignty is relatively recent, with network *Te Mana Raraunga* forming in 2016 to "advocate for Māori rights and interests in data to be protected as the world moves into an increasingly open data environment."[62] The network's purpose is to advance Māori aspirations for collective and individual wellbeing by, amongst other things, asserting Māori data rights and interests are safeguarded through Māori involvement in the governance of data repositories and supporting the development of Māori data infrastructure and security systems to support development of sustainable Māori digital businesses and innovations.

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[59] Indigenous Data Sovereignty: Toward an Agenda 1–2 (Tahu Kukutai & John Taylor eds., 2016).

[60] *See, e.g.*, Stephane Couture & Sophie Toupin, *What Does the Notion of "Sovereignty" Mean When Referring to the Digital?*, 21 New Media & Soc'y 2305 (2019).

[61] Patrik Hummel et al., *Data sovereignty: A Review*, 8 Big Data & Soc'y 1 (2021).

[62] *Our Data, Our Sovereignty, Our Future*, Te Mana Raraunga, https://www.temanararaunga.maori.nz/ (last visited Mar. 10, 2023).

The idea that 'data is a living *taonga*' and of strategic value to Māori, was first articulated by *Te Mana Raraunga*. There have been several discussions as to why data is a taonga, including by *Te Mana Raraunga* itself. The most considered is that given in a 2021 Waitangi Tribunal finding (Wai 2622) on the e-commerce chapter of the free-trade Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), signed in 2016 by the New Zealand government and 10 other nations. The claim sought to establish the consistency with *Te Tiriti* principles of certain provisions in the CPTPP and raised issues of the governance and control of Māori data. While coming to no firm definition of Māori data, the Tribunal found that "the Māori relationship to data...is part of *mātauranga* – the Māori knowledge system", and that therefore, "the way that the digital domain is governed and regulated has important potential implications for the integrity of the Māori knowledge system, which is a taonga."[63] The Tribunal cited the United Nations Special Rapporteur on the Right to Privacy as relevant, particularly "that data is a cultural, strategic, and economic resource for indigenous peoples" and that "existing data and data infrastructure does not 'meet indigenous peoples' current and future data needs'."[64] The Tribunal found that the government had failed to "understand and actively protect *te Tiriti*/the Treaty interests of Māori, both procedurally and substantively" downplaying "the risks to Māori interests arising from the e-commerce provisions, particularly those concerning cross-border data flows, data localisation, and source code."[65]

While the Waitangi Tribunal findings related to e-commerce, there are broader implications. The immediate impact caused the government to make "substantive changes to FTA [free trade agreement] negotiating practices to enable Māori to exercise more and genuine influence on negotiations, resulting in adjustments to e-commerce provisions in FTAs."[66] Additionally, there have been substantive impacts on domestic policy, including:

- the launch of a Digital Strategy for Aotearoa (DSA) that aims to give effect to the Treaty and its principles;

[63] Waitangi Tribunal, Report on the Comprehensive and Progressive Agreement for Trans-Pacific Partnership 52–53 (2021).

[64] *Id.* at 183.

[65] *Id.* at 186, 188.

[66] Ministry of Foreign Affairs Trade, Wai 2522 E-commerce Report – Findings and Proposed Response 2 (2022), www.mfat.govt.nz....

- a Māori Data Governance model being co-designed by Statistics New Zealand and tribal data leaders to bring a cross-government approach to data governance;

- Māori Data Sovereignty for Cloud use, also being co-designed with tribal data leaders[67]

At a legislative level, changes to the Data and Statistics Act 2022, have seen *Te Tiriti* clauses inserted into the Act. Clauses include recognizing the interests of Māori in the "collection of data, the production of statistics, and access to, and use of, data for research as tools for furthering the economic, social, cultural and environmental well-being of Māori."[68]

While these legislative and policy level actions have been underway, there has also been a flurry of activity at the level of various government organisations. For example, the Tertiary Education Commission in its advice on ethical use of student data recommends that education providers examine guidance not just on privacy but also on Māori data sovereignty.[69] The Ministry of Business, Innovation and Employment has funded a Tourism data leadership group, whose terms of reference includes ensuring that "best practices regarding Māori data sovereignty" are observed.[70] The Ministry of Health has published a set of standard protocols for collecting and recording Māori descent and *iwi* affiliation. The protocol recognises the need for the Ministry to understand its "obligations and responsibilities with respect to Māori data sovereignty and governance."[71] To "give effect to the principles of the Treaty of Waitangi," the New Zealand Conservation Authority

[67] *Id.* at 9–10.

[68] Data and Statistics Act 2022, s 3(e)(i) (N.Z.).

[69] *Māori Data Sovereignty*, Tertiary Educ. Comm'n (Feb. 4, 2021), https://www.tec.govt.nz/teo/working-with-teos/analysing-student-data/key-components/community-perspectives/maori-data-sovereignty/.

[70] Ministry of Bus., Innovation & Emp., Tourism Data Leadership Group Terms of Reference 4 (2022), www.mbie.govt.nz. . . .

[71] Ministry of Health, HISO 10094:2022 Māori Descent and Iwi Affiliation Data Protocols 1 (2022), www.tewhatuora.govt/. . . .

intends to observe the "principle of active protection of Māori interests, including Māori data sovereignty."[72]

In the University sector, Auckland University's commercialisation entity, UniServices, has developed a new intellectual property policy to protect Māori knowledge and data.[73] At the University of Otago, Christchurch, the Christchurch Heart Institute "recognise their Te Tiriti obligations and that Māori Data is a Taonga. Therefore, the CHI will treat Māori Data as a taonga and recognise that all data whether digital or biological, identifiable or deanonymized has a whakapapa."[74]

Māori data is now accepted as a taonga, at least in the public sector, and within Aotearoa New Zealand's domestic setting.

IV

Māori Data Sovereignty and Protection of *Taramea*: Commercial Implications

As the previous section indicates, many of the impacts of the call for Māori data sovereignty have been found in the State sector, in both international and domestic policy, in revisions to laws such as the Data and Statistics Act 2022, in implementation into State governance practice, and into organisations such as Universities. However, what of the commercial sector? As the Waitangi Tribunal stated in its findings on the CPTTP, "Māori engage in e-commerce and benefit from the convenience of doing so. Māori are also engaged in the digital domain as users and developers of digital products."[75] Moreover, the Tribunal noted that "Māori ideas about the protection of *mātauranga* captured or expressed in a digital format . . . are different from Western conceptions of intellectual property and its protection, at least in terms of how such conceptions are captured or represented in law, including international law." The Tribunal further stated that the primary

[72] N.Z. Conservation Auth., Giving Effect to Section 4 of the Conservation Act 1987 (2021), https://www.doc.govt.nz/about-us/statutory-and-advisory-bodies/nz-conservation-authority/policies/section-4-of-the-conservation-act/.

[73] *New UniServices Intellectual Property Policy Protects Māori Knowledge and Data*, UniServices (May 16, 2022), www.uniservices.co.nz. . . .

[74] 2 Christchurch Heart Institute, Māori Data Sovereignty Statement and Commitment 3 (2021), https://www.otago.ac.nz/chch-heart-institute/otago834389.pdf.

[75] *See* Waitangi Trubunal, *supra* note 63, at xiii.

difference was that Māori concerns typically extend beyond commercial protection to "matters fundamental to Māori identity such as whakapapa, mana, mauri, and Mātauranga." [76]

How can such 'different' conceptions of property protection be implemented, particularly in international commercial contexts? There are numerous examples, from Aotearoa New Zealand and other nations, where use of Indigenous tangible and intangible property has provided commercial opportunities to non-Indigenous.[77] In relation to biological taonga, Mead views the 1980s–early 1990s as the "heyday" of unethical behaviour of a lot of pharmaceutical companies and food production companies.[78] Such behaviour gave rise to the UN Convention on Biological Diversity 1992 (CBD) and the Nagoya Protocol to provide a legal framework for the fair and equitable sharing of benefits arising from exploitations of a nation's genetic resources, including the traditional knowledge associated with genetic resources.[79] While these international developments are welcomed, they are not sufficient to protecting or allowing for development of Indigenous taonga. Hudson, Anderson and Stirling argue that data is key to e-commerce, and international regimes like the World Intellectual Property Organisation (WIPO) and local IP laws are still grappling with how best to provide protection and governance of Indigenous-identified data that may have commercial application. They further suggest that Indigenous people need a range of tools, including "extra-legal tools," to protect the knowledge and know-how that is, according to the Waitangi Tribunal, potentially a property of such data.[80]

What are such tools as they pertain to data? An example of a taonga species, *taramea*, from the author's tribe of Ngāi Tahu is one way to think through this issue. Through the Ngāi Tahu Settlement Claims Act, Ngāi Tahu are accorded a

[76] *Id.* at 181.

[77] Katharina Ruckstuhl & Maria Amoamo, *Science, Technology, and Indigenous Development*, *in* The Routledge Handbook of Indigenous Development 267 (Katharina Ruckstuhl, Irma A. Velásquez, John-Andrew McNeish & Nancy Postero eds., 2022); Aroha Mead & Sequoia Short, *Reflections on a Career in Indigenous Intellectual Property Ngā Taonga Tuku Iho*, *in* The Routledge Handbook of Indigenous Development 144 (Ruckstuhl et al. eds., 2022).

[78] *See* Mead & Short, *supra* note 77, at 147.

[79] *About the Nagoya Protocol*, Convention on Biological Diversity (Sept. 6, 2015), https://www.cbd.int/abs/about/.

[80] Maui Hudson, Jane Anderson & Rogena Stirling, He Pou Hiringa: Grounding Science and Technology in Te Ao Māori 164 (Katharina Ruckstuhl, Merata Kawharu & Maria Amoamo eds., 2021).

special relationship with taonga species such as *taramea*.[81] *Taramea* (*Aciphylla aurea*) is a sub-alpine plant with a resin traditionally used by Ngāi Tahu to create a fragrance. Over the last 10 years, there has been scientific research into the plant, and commercialisation of the resin to create an oil-based perfume, under the trade name Mea.[82]

Of current local and international IP protections, only trademarking has been applied to the word 'Mea,' a derivative of *taramea*. The word *taramea* itself is unlikely to be trademarked, evidenced recently where Aotearoa New Zealand *mānuka* producers have withdrawn from a trademark battle with Australian producers to use the name outside Aotearoa New Zealand.[83] From a copyright perspective, the commercial website that contains narratives associated with the plant is copyrighted, however other websites, including those of government departments such as Manaaki Whenua (Landcare Research) make no mention of Ngāi Tahu's special relationship with this taonga.[84] Journal articles that contain precise geographic, scientific or cultural narrative information about the plant, with some narratives going back to the 19th and early 20th centuries, are copyrighted to the individual authors, with nothing that suggests that there may be an ongoing Ngāi Tahu *mātauranga* interest.

As we see in this example, trademarking and copyright can only go so far in asserting Ngāi Tahu rights and ongoing *kaitiakitanga* interest in a taonga. Digitization of scientific, geographical and cultural information allows open access to this information. Moreover, this information, which is overwhelmingly from a non-Indigenous and often colonial perspective, circulates in perpetuity and across national borders, embedding particular regimes of understanding and remaining largely silent on Indigenous others. For example, the Smithsonian Institute has an extensive collection of botanical samples, including *taramea*, collected from

[81] Ngāi Tahu Settlement Claims Act 1998, ss 287–96 (N.Z.).

[82] *Mea*, Kāti Huirapa Rūnaka ki Puketeraki, http://www.puketeraki.nz/MEA.html (last visited Mar. 13, 2023).

[83] Liv Casben, *'Sweet' Victory for Aussie Honey Producers*, W. Australian (Jan. 23, 2023, 3:27 AM), https://thewest.com.au/business/agriculture/sweet-victory-for-aussie-honey-producers-c-9536773.

[84] Aciphylla spp. *Taramea. Papaī. Speargrass*, Ngā Rauropi Whakaoranga, https://rauropiwhakaoranga.landcareresearch.co.nz/names/11c60d30-777a-40cd-9ba6-d3ccd073d8bd (June 22, 2020).

Aotearoa New Zealand in the 1930s by A.W. Anderson.[85] None of this information refers to Māori or Ngāi Tahu. Hence, IP law cannot, and was not designed to take into consideration ongoing Indigenous relationships with their taonga.

One way to get around this issue from a data perspective is through asserting Indigenous sovereignty rights within data infrastructures. This includes both data warehousing and data provenance. In reference to the former, Māori have raised the issue of offshore cloud storage of government-collected data as presenting potential risks to Māori data sovereignty. Hence there has been the suggestion that onshoring should be the preferred option for storing Māori data wherever possible and that Māori data sovereignty should be incorporated into policies and practices of Cloud services, such as Microsoft or Amazon Web Services.[86] While this may not have an immediate impact for the commercial protection of *taramea*, it would ensure that future data that is gathered and held through government funded research contracts and/or government funded research institutions such as universities, would be subject to Māori jurisdiction or *rangatiratanga* if taonga data was required to be held within Aotearoa New Zealand's jurisdiction.

In relation to data about *taonga* species like *taramea* that are already circulating through research cataloguing systems, data sets, scientific publications, or open access databases, extra-legal digital rights management tools like traditional knowledge (TK) and biocultural (BC) labels might be used.[87] At the Ngāi Tahu end, this might include appending such labels to any open access information on their websites and approaching organisations, such as the Smithsonian to modify the metadata to include a field that notes the Ngāi Tahu interest.[88]

Another recent approach that the author has been involved in is the IEEE Working Party on a Recommended Practice for Provenance of Indigenous Peoples'

[85] *Search Results: "A. W. Anderson" / place: "New Zealand"*, Smithsonian Inst., (last visited Mar. 13, 2023), https://collections.si.edu/search/results.htm?q=%22A.+W.+Anderson%22&fq=place%3A%22New+Zealand%22&start=0.

[86] Tahu Kukutai et al., *Māori Data Sovereignty and Offshoring Māori Data*, Te Kāhui Raraunga 2 (July 27, 2022), https://www.kahuiraraunga.io/ng%C4%81-hua-i-resources.

[87] *See, e.g.*, Hudson, Anderson & Stirling, *supra* note 80.

[88] Jane Anderson & Kimberly Christen, *Decolonizing Attribution: Traditions of Exclusion*, 5 J. Radical Librarianship 113 (2019).

Data.[89] The intention is that there will be a recommended standard that will embed Indigenous data provenance into metadata fields that can be used across public and industry sectors. Such an approach is intended to connect data to Indigenous people and places, potentially supporting future benefit sharing.

Provenance is also important within commercial approaches to ensuring that a product is what it claims to be. In this case, Mea is an Indigenous-controlled product with a verifiable narrative that is culturally significant to its tribal group. Consumers are reliant on claims to such authenticity; however there are many cases where Indigenous "allure" is merely a guise to commodification. For example, there are reports that two-thirds of Aboriginal-style souvenirs are fake, with a consequent loss of millions of dollars to Aboriginal and Torres Strait people.[90] Increasingly, consumers want to know that their product purchases are authentic, which in turn relies on standard verification processes such as supply chain auditing, which in turn is increasingly a digital process. Indigenous data provenance standards, as those recommended by the IEEE Working Party, might assist such auditing. Blockchain has also been suggested as a potential authentication mechanism, with some suggesting that blockchain might help Indigenous people assert rights, particularly over digital art.[91] However, such claims are largely untested, and may in fact consolidate different types of digital imperialism.[92]

Conclusion

This paper has argued that Indigenous data sovereignty, while a recent phenomenon, in fact has a long struggle against colonising constructs such as the Doctrine of Discovery. As scholars have argued, claims for Indigenous sovereignty challenge nation states, and hence are rejected, even into recent times. However, as this paper has also argued, sovereignty as *imperium* or absolute power of decision-making and sovereignty as *dominium* and the right to make decisions about owning and disposing of property are both under review, at least in Aotearoa New Zealand.

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[89] IEEE Society on Social Implications of Tech., *Recommended Practice for Provenance of Indigenous Peoples' Data*, IEEE Standards Ass'n (June 3, 2020), https://standards.ieee.org/ieee/2890/10318/.

[90] Lorena Allam, *Majority of Aboriginal Souvenirs Sold are Fakes with No Connection to Indigenous People, Report Finds*, Guardian (July 18, 2022, 1:30 PM), www.theguardian.com/…/majority-of-aboriginal-souvenirs-sold-are-fakes-with-no-connection-to-indigenous-people-report-finds.

[91] Michael Rogerson & Glenn C. Parry, *Blockchain: Case Studies in Food Supply Chain Visibility*, 25 Supply Chain Mgmt. 601 (2020).

[92] Olivier Jutel, *Blockchain Imperialism in the Pacific*, 1 Big Data & Soc'y 1 (2021).

While New Zealand's governance is still framed within British legal traditions, Māori data sovereignty claims, founded on the concept of taonga, have called into question the absolutism of both the *imperium* and the *dominium*. This can be seen in Aotearoa's New Zealand's international free trade agreements, as only nations and not "diminished" dependencies make such agreements. Māori data sovereignty claims have forced such changes into these international documents, with the sub-text now being that Māori must be at the negotiating table ensuring that Māori law — the first law of Aotearoa New Zealand — is being upheld. Māori data sovereignty claims likewise have affected how institutions view and account for their use and re-use of Māori data. Government and increasingly other publicly funded agencies now are required to put in place policy measures to ensure appropriate governance, protection and use of Māori data.

From a commercial perspective, understanding data as a taonga has led to conversations with commercial data infrastructure providers to enable systems of appropriate Māori governance. At the level of commercialization of a specific taonga such as *taramea*, IP mechanisms offer only limited protections. Therefore, other extra-legal mechanisms are being developed. As briefly discussed, TK and BC labels, standardisation of Indigenous metadata, supply chain auditing, and potentially blockchain offer alternate protective and governance pathways for a specific taonga as it moves through a life cycle from physical bio-specimen to product in the market, and all the phases in-between and beyond.

From *datum nullius* to data *taonga* is a conceptual leap. The fact that this leap is being practically developed globally and at scale responds to the understanding that the ongoing relationship of Indigenous people to their tangible and intangible taonga — their prized treasures and property — is in perpetuity, across-borders, multi-jurisdictional, and across the public-private divide.

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COPYRIGHT MANAGEMENT INFORMATION (CMI) AS A TOOL TO PROTECT INDIGENOUS CULTURAL WORKS

MEGAN KEENAN*

Indigenous communities have struggled with a long history of outsiders removing Cultural Works from Indigenous lands. This removal has led to a disconnect between Indigenous communities and their culture. Further, the disconnect impoverishes the public record of the cultural context surrounding these works. Many Indigenous communities are working to reconnect with Cultural Works that were removed. One such way is re-establishing the attribution of the Cultural Work. This attribution can take the form of a label affixed to the work. This article explores how § 1202 of the Copyright Act can be a tool to protect such labels. First, this article will look at the issues surrounding Indigenous communities and attribution and how Indigenous communities are working to reconnect with Cultural Works. Second, it will take a deep dive into § 1202 and how it can be used as an enforcement mechanism for the work that Indigenous communities are doing. Third, it will look at some of the imperfections of § 1202 as an enforcement mechanism for Indigenous communities.

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Introduction

In copyright, attribution has a long history of connecting authors[1] with their creative works. Attribution provides honor, pride, and recognition for the author.[2] It's seen as an author's right, bringing them recognition and acknowledgment for their work where it is due.[3] And attribution tethers an author to their creation, regardless of where any copy of the work moves. Indeed, as the work interacts with the world, an "author's name is embedded into institutional infrastructures, catalogues, and records and, through such, is also embedded in social and cultural memory[.]"[4] Thus, attribution can outlive the author, regardless of whether the work is still protected under copyright.

Attribution is an important issue that extends beyond the confines of copyright law and, more broadly, Western culture.[5] For example, attribution is an important issue in many Indigenous communities. However, Indigenous communities have been dealing with a long history of discrimination, exploitation and dispossession that has severed communities' access to their own Cultural Works, and in turn, attribution to those works.[6] As a result, what has developed over time is a

[1] In this article, "author" is used as defined within the context of U.S. copyright law. The protection of an author's creative work is derived from the Constitution: Congress has the power to promote the "Progress of Science and useful Arts, by securing for limited Times to *Authors* and Inventors the exclusive Right to their respective Writing." U.S. Const. art. 1, § 8, cl. 8 (emphasis added). The Supreme Court has defined an author as "he to whom anything owes its origin; originator; maker[.]" Burrow-Giles Lithographic Co. v. Sarony, 111 U.S. 53, 58 (1884). Stating the proposition in another way, one is an author "if the resulting work is the product of one's own independent efforts, i.e., has not been copied." 1 Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 1.06 (2022).

[2] U.S. Copyright Off., Authors, Attribution, and Integrity: Examining Moral Rights in the United States 34 (2019).

[3] *See, e.g.*, Jane Ginsburg, *The Right to Claim Authorship in U.S. Copyright and Trademarks Law*, 41 Hous. L. Rev. 263 (2004).

[4] Jane Anderson & Kimberly Christen, *Decolonizing Attribution: Traditions of Exclusion*, 5 J. Radical Librarianship 113, 124 (2019).

[5] *Id.*

[6] *E.g., Traditional knowledge – an answer to the most pressing global problems?*, U.N. Dep't of Econ. & Soc. Aff. (Apr. 22, 2019), https://www.un.org/development/desa/en/news/social/permanent-forum-on-indigenous-issues-2019.html. While copyright law can be a tool, it only applies to expressions of traditional knowledge that meet the requirements for protection under the Copyright Act.

troubling trend of disassociating Indigenous communities' Cultural Works from the community that a Cultural work originated from.

In recent years, Indigenous communities have been working to reclaim attribution of their Cultural Works. Communities have been working in conjunction with non-profits to label,[7] or document and share,[8] Cultural Works in a digital context. For example, some Indigenous Communities are affixing labels to their Cultural Works. These labels are digital. However, there has been little discussion about how the law, specifically copyright law, can help protect these efforts.

Many scholars have written extensively on how intellectual property law is inadequate, to protect indigenous communities' expressions of Cultural Works.[9] However, this paper takes a different approach. This paper will look at how Indigenous communities can use U.S. copyright law,[10] as it stands today, as a tool to enforce their rights to attribution in Cultural Works.

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17 U.S.C. § 102(a). This article will use the term "Cultural Works" to refer to the expressions of traditional knowledge that copyright law can protect, i.e., music, dance, art, designs, performances, ceremonies, architectural forms, and other expressions of culture protected by copyright law. Traditional knowledge "is a living body of knowledge that is developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity." *Traditional Knowledge and Intellectual Property*, World Intell. Prop. Org. (2016), https://doi.org/10.34667/tind.28828; *see also Traditional Cultural Expressions*, World Intell. Prop. Org., https://www.wipo.int/tk/en/folklore/ (last visited May 15, 2023) (including examples of traditional knowledge protected by copyright).

[7] *See, e.g.*, *Local Contexts*, ENRICH, https://www.enrich-hub.org/local-contexts (last visited May 15, 2023) ("The Local Contexts Hub allows Indigenous communities to adapt Traditional Knowledge and Biocultural Labels to their needs and share them safely with institutions, researchers and data repositories. It also allows Institutions and Researchers to generate Notices and engage with Indigenous communities about the appropriate use of the Traditional Knowledge and Biocultural Labels.").

[8] *See, e.g.*, Murkutu, www.mukurtu.org (last visited May 15, 2023) ("Mukurtu (MOOK-oo-too) is a grassroots project aiming to empower communities to manage, share, and exchange their digital heritage in culturally relevant and ethically-minded ways. We are committed to maintaining an open, community-driven approach to Mukurtu's continued development. Our first priority is to help build a platform that fosters relationships of respect and trust.").

[9] *See generally*, Susy Frankel, *'Ka Mate Ka Mate' and the Protection of Traditional Knowledge*, *in* Intellectual Property at the Edge: The Contested Contours of Intellectual Property (Rochelle Dreyfuss & Jane Ginsburg eds., 2014); Anderson & Christen, *supra* note 4, at 116–24; Susy Frankel, Intellectual Property in New Zealand 120 (2d ed. 2011).

[10] The Copyright Act is silent as to whether it applies to tribal lands in the U.S. *See generally* 17 U.S.C.; Trevor Reed, *Creative Sovereignties: Should Copyright Apply on Tribal Lands?*, 67 J. Copyright Soc'y 313 (2021).

First, this paper will look at the problems that Indigenous communities have faced with copyright historically, and how communities are taking action to protect their Cultural Works. Second, this paper will suggest Copyright Management Information (CMI) as a tool for Indigenous communities to protect their attribution and enforce the inclusion of their attribution. Third, this paper will look at the restrictions that CMI poses in protecting Cultural Works and, if available, possible solutions to bridge the gap between where the law stands today.

I

Indigenous Communities and Attribution

Cultural Works are more than just art. These works are foundational to Indigenous Communities. Indeed, such works are the cornerstone of Indigenous identity and cultural heritage. Thus, such works are fundamental to the protection, preservation, and sustainability of the livelihoods of Indigenous peoples.[11]

Despite the Importance of Cultural Works, Indigenous communities have been dealing with a long history of outsiders of the community reappropriating these Cultural Works or removing them from Indigenous lands entirely. For example, an outsider would record a Cultural Work in the form of a song. By recording the song, the outsider was attributed to it and not the Indigenous individual.[12] Thus, within copyright law, the outsider was then considered the author of the work.

This misplaced attribution led to the outsider displacing the Indigenous individuals as the source of the Cultural Work. Not only did such ties displace the Indigenous author, but it also severed the ties between the Cultural Work and the community itself. Not only does this disconnection have a profound effect on Indigenous communities, but it also affects the public at large.

Disconnecting Indigenous communities from their Cultural Works negatively impacts them. When Indigenous peoples and communities do not have possession over their creative works, they become disassociated with the works. This disassociation has led to the decontextualization of many of the works, resulting

[11] U.N. Dep't of Econ. & Soc. Affs., *supra* note 6.
[12] Anderson & Christen, *supra* note 4, at 123.

in misuse and misappropriation.[13] And, decontextualization takes away from the work itself because it erases Indigenous relationships to the work, including attribution and culturally sensitive terms of use. Deliberate exclusion of Indigenous groups, misattribution, or non-attribution "profoundly affect how Indigenous peoples can participate in their own public and published narratives, how sovereignty can be enacted and maintained, how access to heritage is made possible, [and,] how histories and narratives can be retold[.]"[14]

Not only are the Indigenous communities deeply impacted by misplaced attribution, but the public at large suffers as well. Disconnecting Indigenous communities from their Cultural Works affects the public's ability to learn and understand Indigenous culture. The view of Cultural Works without any context for where such works originated, for what purposes the works were used, or who was included in the work, strips the works of cultural context and offers them to the public in isolation. Without this critical information, what can be understood about Indigenous culture is limited. This stripping of the proper attribution affects the visibility of Indigenous Peoples and diminishes how Indigenous histories and experiences are shared and inform a national narrative. The inaccurate attribution also harms the public at large as the public is disinherited from the Indigenous culture that is part of the broader U.S. history and culture.

Some Indigenous communities have been working to reclaim and associate with previously disconnected Cultural Works and to preserve the connection of new works. One example is Local Contexts, which works with Indigenous communities to attach digital labels to Cultural Works. Every unique community developed TK Label includes a permanent digital identifier that "support the inclusion of local protocols for access and use" of Cultural Works.[15] For example, these labels identify the Indigenous community form which a work originated from as well as additional information. The additional information includes whether a Cultural Work includes sacred or ceremonial material, has gender restrictions, or has seasonal conditions of use (e.g., a song that is to be played upon the first snowfall of the season). These labels allow Indigenous communities to remain connected,

[13] *Id.*

[14] *Id.* at 124.

[15] *TK Labels*, Local Contexts, https://localcontexts.org/labels/traditional-knowledge-labels/ (last visited May 15, 2023).

and to disseminate specific terms of use for sharing and engaging with Cultural Works.[16]

These efforts are important to reconnect Indigenous communities with their Cultural Works. Initiatives to provide *sui generis* means of attribution are imperative to reverse some of the harm that has been done to Indigenous communities. However, this method of attribution has a vulnerability. Namely, standing alone, it is not clear what will deter bad actors or indifferent bureaucratic systems from removing these labels once affixed onto a Cultural Work. Thus, exploring an area of law that can provide legal protection to these efforts may prove to be of great importance.

II

Copyright Management Information (CMI) as a Tool

While authors benefit from attribution, it is not an express right granted by the U.S. Copyright Act. Other countries see attribution as a natural law that arises "out of the inherent connection between authorial genius and literary offspring."[17] In contrast, in the U.S., an author must have some cause of action in positive law.

One U.S. law which takes steps to protect authors' attribution rights is 17 U.S.C. § 1202, which describes Copyright Management Information (CMI) and its protection under the law. § 1202 protects against the falsification and the removal or alteration of certain information, described as CMI. While not required, CMI's attribution -like properties are meant "to enable the public to more easily find and make authorized uses of copyrighted works."[18] While this is not a system meant to protect "the inherent connection between authorial genius and literary offspring[,]" it is one of the few sections within the U.S. Copyright Act that directly tackles any sort of attribution right.[19]

This section will look at how the law defines CMI, what the law protects CMI from, damages, and an application to labels on Cultural Works.

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[16] *Id.*

[17] 3 Melville B. Nimmer & David Nimmer, Nimmer on Copyright § 8D.03 (2022).

[18] Bruce A. Lehman, Intellectual Property and the National Information Infrastructure 235–36 (1995).

[19] *Cf.* 17 U.S.C. § 106(a).

A. How the Law Defines CMI

The definition of CMI is broad and protects a range of information meant to connect a copyright consumer with the copyright owner or author. The definition of CMI is broken into two parts, the types of information that may be considered as CMI and how that information is connected with the copyrightable work.

The first part of the CMI definition is comprised of a list of types of information qualifying as CMI. Many courts take the view that CMI's definition is broad.[20] The statute itself enumerates seven specific types of information that meet the first part of the definition of CMI, and one catch-all provision.[21] The types of information that is protected as CMI, and that make up the first part of the definition include the title and other information identifying a work;[22] the name of the author;[23] the name of the copyright owner;[24] name of a performer whose performance is fixed;[25] the terms and conditions for use of the work;[26] and identifying numbers or symbols.[27] So long as there is at least one of the types of information enumerated by the statute, then it meets the first part of the definition.

The information prong that makes up CMI can take many forms. To start, CMI does not need to be digital, but can also come in physical form.[28] Congress

[20] *See, e.g.*, Energy Intel. Grp., Inc. v. Kayne Anderson Cap. Advisors, L.P., 948 F.3d 261 (5th Cir. 2020); Murphy v. Millennium Radio Grp. L.L.C., 650 F.3d 295, 302 (3d Cir. 2011).

[21] 17 U.S.C. § 1202(c).

[22] 17 U.S.C. § 1202(c)(1) ("The title and other information identifying the work, including the information set forth on a notice of copyright.").

[23] 17 U.S.C. § 1202(c)(2) ("The name of, and other identifying information about, the author of a work.").

[24] 17 U.S.C. § 1202(c)(3) ("The name of, and other identifying information about, the copyright owner of the work, including the information set forth in a notice of copyright."). A notice of copyright is the ©, the year of publication of the work, and the name or generally known alternative designation of the owner. 17 U.S.C § 401.

[25] 17 U.S.C. § 1202(c)(4) ("With the exception of public performances of works by radio and television broadcast stations, the name of, and other identifying information about, a performer whose performance is fixed in a work other than an audiovisual work.").

[26] 17 U.S.C. § 1202(c)(6).

[27] 17 U.S.C. §§ 1202(c)(7), 401

[28] Some courts have found that analog data does not count. *See Textile Secrets Int'l, Inc. v. Ya-Ya Brand Inc.*, 524 F. Supp. 2d 1184, 1201 (C.D. Cal. 2007); *IQ Grp. v. Wiesner Publ'g, Inc.*, 409 F. Supp. 2d 587, 597 (D.N.J. 2006). However, other courts, namely courts of appeals, have come to different conclusions. *E.g., Murphy*, 650 F.3d at 304–05. Indeed, even a Senate report noted that "CMI need not be in digital form, but CMI in digital form is expressly included." S. Rep. No. 105–190, at 16 (1998). Therefore, it is accepted that CMI need not be digital, i.e., CMI can be digital or physical.

did not prescribe any specific method. This allows for a flexible threshold of what can be included as CMI, independent of technological advancements or changes. Examples of information that constituted CMI include gutter credits with photos,[29] watermarks[30] and PDF File names.[31] However, there is a circuit split about whether the context of the CMI matters.[32]

The second part of the CMI definition is that the CMI previously discussed, must be "conveyed in connection with" copies, phonorecords, performances, or displays of the work.[33] Courts have found that CMI must be on or next to the work.[34] For example, a gutter credit positioned below a photo in a publication fits within CMI.[35]

B. How the Law Protects CMI

Section 1202 protects against the falsification and the removal or alteration of CMI. To fall within the statutory requirement of false CMI, a violator must knowingly, provide false CMI, with the intent to induce, enable, facilitate, or conceal infringement.[36] In order to prevail on a claim of removal or alteration of CMI, a plaintiff must prove the following: (1) the existence of CMI in connection with a copyrighted work; and (2) that a defendant "distribute[d] . . . works [or] copies of works;" (3) while "knowing that [CMI] has been removed or altered without authority of the copyright owner or the law;" and (4) while "knowing,

[29] Mango v. Buzzfeed, Inc., 970 F.3d 167, 169 (2d Cir. 2020); *Murphy*, 650 F.3d at 302.

[30] McGucken v. Chive Media Grp., LLC, CV 18-01612-RSWL-KS, 2018 WL 3410095, at *4 (C.D. Cal. 2018).

[31] Energy Intel. Grp., Inc. v. Kayne Anderson Cap. Advisors, L.P., 948 F.3d 261 (5th Cir. 2020).

[32] *Compare Murphy*, 650 F.3d at 302 (defining CMI as "extremely broad, with no restrictions on the context in which such information must be used in order to qualify as CMI"), *with* Fischer v. Forrest, 968 F.3d 216, 224 (2d Cir. 2020) ("[T]he name of an author can, of course, constitute CMI when conveyed in connection with the relevant copyrighted work. 17 U.S.C. § 1202(c). But 'Fischer's' cannot be construed as CMI with respect to the advertising text at issue because it is simply the name of the product being described. In short: context matters.").

[33] 17 U.S.C. § 1202(c).

[34] *See* SellPoolSuppliesOnline.com, LLC v. Ugly Pools Ariz., Inc., 804 F. App'x 668, 670–71 (9th Cir. 2020); Logan v. Meta Platforms, Inc., No. 22-cv-01847-CRB, 2022 U.S. Dist. LEXIS 194431, at *21 (N.D. Cal. 2022).

[35] *Mango*, 970 F.3d at 169.

[36] 17 U.S.C. § 1202(b).

or … having reasonable grounds to know" that such distribution "will induce, enable, facilitate, or conceal an infringement."[37]

The false CMI test and the removal of CMI test both have a "double scienter" requirement. First, the bad actor must have knowingly removed or knowingly provided false CMI. This element does not require that the CMI-remover did so themselves. It is enough that the CMI-remover had knowledge that the CMI had been removed.[38]

The second scienter requirement is with the intent to induce, enable, facilitate, or conceal infringement. This does not require actual knowledge.[39] A CMI-remover's "awareness that distributing copyrighted material without proper attribution of CMI will conceal his own infringing conduct satisfies the DMCA's second scienter requirement."[40] And, § 1202 does not require proof that the CMI-remover knew, or had reason to know, of the downstream infringement.[41] This requirement is a limiting principle, ensuring that innocent accidents of removal are not actionable under the statute.

The statute's double scienter requirement of intent and knowing, is intended to counterbalance its otherwise broad definition of CMI. Therefore, the broad definition of CMI captures the diverse uses of CMI while other parts of the statute limit liability to bad actors. In the context of Indigenous communities, this flexibility protects Indigenous communities' attribution through CMI, without deterring others from interacting with their Cultural Works.

Further, an important aspect of CMI is that its protection is independent from the rights in the creative work. So, an Indigenous community can have works

[37] *Mango*, 970 F.3d at 171.

[38] Friedman v. Live Nation Merch., Inc., 833 F.3d 1180, 1187 (9th Cir. 2016).

[39] The word knowledge alone in the copyright act bears the dictionary definition meaning "'knowledge' has historically meant and still means the fact or condition of being aware of something." Unicolors, Inc. v. H&M Hennes & Mauritz, L.P., 142 U.S. 941, 946 (2022) (discussing knowledge of inaccurate information on a copyright registration). This is an example of congress imposing a scienter requirement that is not actual knowledge (civil remedies for certain acts performed by a person who knows or has "reasonable grounds to know" that he or she was facilitating infringement). *Id.* at 947; 17 U.S.C. § 1202(b).

[40] *Mango*, 970 F.3d at 172.

[41] *Id.* at 171 ("Because the plain language of the statute does not require such evidence, the district court did not err in finding BuzzFeed liable.").

publicly displayed or available for public use without necessarily forfeiting their right to protect the CMI if it is removed.

C. Damages

The strongest gain that an Indigenous community can obtain by implementing CMI is that the law has bite. In addition to an award of damages, §1203(b) provides for various kinds of affirmative relief in civil actions, such as temporary and permanent injunctions, impoundment, and, as part of a final judgment or decree finding a violation, the court may order remedial modification or destruction of the offending device or product.[42] Thus, Indigenous communities will have a strong enforcement mechanism should any CMI be knowingly removed from Cultural Works.

D. Application of CMI to Cultural Works

CMI's broad definition is why it can be an effective tool for Indigenous communities, especially for communities that are already using digital labels to identify and provide context to Cultural Works. But a formal label is not necessary. As courts have stated, even a PDF file name can constitute CMI, so long as it contains the qualifying information listed above. Indigenous communities that incorporate CMI into any type of naming or physical/digital embodiment of Cultural Works can strengthen the attribution through CMI's strong enforcement mechanisms.

Unfortunately, "[i]t is common practice in the digital world for CMI to be stripped from works, disconnecting a work from its authorship and ownership information[.]"[43] This is especially problematic for Indigenous communities who are reclaiming works removed from their communities or taking ownership of newly created works. Thus, understanding what § 1202 protects, and which remedies are available, is imperative to using CMI as an effective tool to protect Cultural Works.

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[42] 17 U.S.C. § 1203(b).

[43] U.S. Copyright Off., *supra* note 2, at 86.

III

Inherent Limitations to the Applicability of CMI to Cultural Works

While CMI can be used as a tool to protect attribution rights, it is inherently limited. Generally, these limitations are a product of the nature of copyright law. There are three main limitations to the applicability of CMI to Cultural Works.

First, authorship can be an obstacle in CMI claims. While §1203 allows "any person injured by a violation of § 1202" to bring suit,[44] the requirements of § 1202 contemplate whether the violator had authority from the copyright owner. CMI does not need to be personally affixed by the copyright owner.[45] Thus, one need not be the author of a work to have a cause of action under § 1202. A claim of removal or alteration of CMI is contingent on whether the removal or alteration was done without the authority of the copyright owner. In many instances, Cultural Works were removed from their communities of origin, and an individual or institution outside of the community took control of copyright ownership of the work. Thus, an Indigenous community attempting to assert a 1202 claim could have difficulty with proving that the violator did not have the authority of the copyright owner if that community does not already have a relationship with that outsider individual or institution.

Second, the nature of copyright law embodies western notions of property and individualism. At times, this can clash with Indigenous communities' values and relationship with Cultural Works. Further, historically, copyright law was used as a means to push Western concepts of property on Indigenous communities while simultaneously taking their property away.[46] For example, the concept of fixation in copyright law clashes with authorship in an Indigenous context. In Indigenous communities, authorship is not necessarily vested with an individual, the rights to the Cultural Works belong to the community.[47] But, in U.S. copyright law, authorship often vests with the individual – typically the individual that fixed a work in a tangible medium.

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[44] 17 U.S.C. § 1203(a).
[45] *Mango*, 970 F.3d at 171.
[46] *See* Anderson & Christen *supra* note 4, at 122–23.
[47] U.N. Dep't of Econ. & Soc. Affs., *supra* note 6, at 409.

The problem is that historically, outsiders fixed Indigenous Cultural Works, which make the outsider the author, rather than the Indigenous peoples captured in the photographs or recordings. The authorship conferred to the photographer, or the sound recordist functions as a complementary site of erasure of Indigenous peoples' presence."[48] Thus, an Indigenous community's ability to prove that its label was removed, or a label was falsified without the copyright owner's permission could lend itself to be an obstacle.

However, if these labels are being affixed in conjunction with the institution or individual that owns the copyright, despite the Cultural Work originating within an Indigenous community, then contractual agreements may be a method to solve any problem regarding authorship requirements.

Third, Indigenous communities may run into an issue with how the law defines CMI. While generally interpreted as broad, the definition of CMI may not be the right type of information that will properly attribute or connect an Indigenous community to all its Cultural Works. For example, it is not clear under the statute whether a digital label or label in general with only the originating Indigenous community's name would constitute CMI. However, one solution would be to utilize § 1202's catch all, i.e., any "other information as the Register of Copyrights may prescribe by regulation."[49] Should the Copyright Office decide that an Indigenous community's name, e.g., a tribal affiliation, is CMI, then that information would meet the definition. Such a promulgation would provide clarity to Indigenous communities and ensure that the attribution information that Indigenous communities need to stay connected with their Cultural Works will be protected in § 1202.

Although CMI is construed broadly by courts, it is still dependent upon copyrightability, and other specific information enumerated in § 1202. As a result, CMI may not protect all forms of attribution required by Indigenous communities. Still, there are actions that Indigenous communities can take to protect such information regardless of whether it falls within the auspices of CMI.

[48] *Id.*

[49] 17 U.S.C. § 1202(c)(8).

As a practical matter, however, although the law has a limited legal definition, additional information is more likely to be protected if is intermingled with at least one aspect of irrefutable CMI. Such protection is important because of the two most common ways CMI gets removed. One common way CMI is removed is by the willful infringer and the other is by the indifferent bureaucratic violator. Here, the second one is the bigger concern, but we will start with the willful infringer.

The willful infringer, willfully infringes on a copyright, knowing of their infringement, and they remove CMI to cover up their infringement. Typically, these infringers are taking specific isolated works. In contrast, the bureaucratic violator is someone who acts at scale, striping the CMI from many creative works. These violators strip meta data, crop photos, etc. These violators generally strip the creative works of all CMI because it is more efficient for them to do so. And, often times they have permission to use the work. These violators are generally internet platforms.

The harm caused by the willful infringer is clear: they infringed on the work and they stripped it of the CMI. The harm from the bureaucratic violator is that even though they do not necessarily infringe on the work, they do strip the works, in an Indigenous works context, of their culture, background, and association to the Indigenous communities from which they came. Because these violators are generally internet platforms, they can spread these decontextualized works rapidly, making the connection between the work and the Indigenous community hard to realize.

Generally, neither of these violators will spend time deciding what is CMI and what is not. They will simply remove all of the accompanying information. Thus, an Indigenous community can protect information that is questionable- or non-CMI, regardless of its classification, if it is comingled with undeniable CMI. Thus, Indigenous communities can protect information not covered under the auspices of CMI while still using CMI as an enforcement and protective mechanism.

Even though there are limitations to the use of CMI as a tool to protect labels attached to Cultural Works by Indigenous communities, CMI can still be a useful tool as part of the patchwork enforcement mechanism to protect these labels.

Conclusion

CMI is a tool to keep creative works connected to, and contextualized by, the Indigenous communities from which they originated. It gives these communities the ability to enforce their rights and obtain the statutorily available remedies. CMI as a protection and enforcement mechanism is a tool to reverse Indigenous erasure. It can serve as a direct tool for Indigenous communities to reclaim their cultural heritage through cultural terms of use, attribution, and norm-setting. In short, CMI can be a powerful tool to empower Indigenous communities to protect their Cultural Works.

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INDIGENOUS BUSINESS DATA AND INDIGENOUS DATA SOVEREIGNTY: CHALLENGES AND OPPORTUNITIES

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In this paper, principles of Indigenous data sovereignty are examined in the collection and use of Indigenous business data in official statistics systems in Aotearoa New Zealand. The analysis centres on Statistics New Zealand's (Stats NZ's) Tatauranga umanga Māori*, that is, its framework for Māori business statistics and the definition of Māori business. The paper also serves as an observation of the process and outcome of a working group comprising Māori and non-Māori which was assembled to advance the definition of Māori business and to ensure that it corresponds with expectations for the inclusion of Indigenous people in official data systems. The benefits envisaged by the application of Indigenous data sovereignty principles for Indigenous peoples are, however, still to be realised. Collaborative design with Māori on official data systems and the Māori business definition provide a model for similar efforts between Indigenous peoples and official statistics agencies elsewhere, where there is a desire to improve the quality of data on Indigenous economies and wellbeing.*

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INTRODUCTION

This paper examines the challenges and opportunities of adhering to principles of Indigenous data sovereignty in the collection and use of Indigenous business data in official statistics systems. The analysis centres on Tatauranga umanga Māori, that is, Statistics New Zealand's (Stats NZ's)[1] framework for Māori business statistics and its review of the definition of Māori business.[2] The main research question guiding this paper is how does the process and outcome of a new definition of Māori business advance Indigenous aspirations for self-determination and wellbeing? This paper adopts the meaning of self-determination given by article three of the United Nations Declaration on the Rights of Indigenous Peoples, which states that Indigenous peoples have the right to "freely determine their political status and freely pursue their economic, social and cultural development."[3] While non-binding on member states, the declaration, nevertheless, presents an opportunity for positive Indigenous self-development, which may be constrained by access to accurate and complete data on the value and potential of Indigenous

[1] D. Bishop et al., *Investigation Into the Feasibility of Producing a Regular Statistical Series on Māori Authorities*, STATS NZ (2007).

[2] *Tatauranga Umanga Māori – consultation paper*, STATS NZ (2012); *Tatauranga umanga Māori 2014: Statistics on Māori authorities*, STATS NZ (2014).

[3] UNITED NATIONS, DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES 4 (2008), http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

economies.[4] A perspective of wellbeing derived from *te ao Māori* (the Māori world view) is adopted, in which wellbeing is viewed as "multidimensional (spiritual, physical, psychological and social), dependent on leaders and groups who collectively engender wellbeing defined in Māori terms as mauri ora [vitality of life] and *hauora* [healthy existence], and is enhanced through fulfilling cultural roles and *whakapapa*-based [familial] affiliations."[5] The term Māori refers to the Indigenous people of Aotearoa New Zealand, who self-identify as such based on their ancestry and ethnic affiliation.[6] Indigenous here refers to the original people of a land, territory, or state whose existence and cultural continuity predates colonial occupation and settlement.[7] Māori are an example of an Indigenous people. When referring to Indigenous people or concepts that pertain to Aotearoa, Māori is used instead of Indigenous.

The paper finds that Stats NZ's formation of a working group comprising Māori from various sectors illustrates the efficacy of collaboration between *tāngata whenua* (people of the land, Indigenous people) and officials, both Māori and non-Māori, to address a common cause—better Māori business data and improved Māori wellbeing.[8] This collaborative work on Māori business statistics was consistent with the kind of relations that were being sought from higher level work underway in Stats NZ to co-design a Māori data governance model for official data.[9] The paper is organised into three parts. First, *te ao Māori*—the Māori world view, Treaty of Waitangi principles, relevant Indigenous business theory, and Indigenous data sovereignty principles are canvassed as a framework

[4] Jason P. Mika, *The Role of the United Nations Declaration of the Rights of Indigenous Peoples in Building Indigenous Enterprises and Economies*, *in* Conversations about Indigenous Rights: The UN Declaration of the Rights of Indigenous People in Aotearoa New Zealand 156, 156 (Selwyn Katene & Rawiri Taonui eds., 2018).

[5] Jason P. Mika, Parliamentary Comm'r for the Env't, Māori Perspectives on the Environment and Wellbeing 8 (2021), pce.parliament.nz/.../mika-maori-perspectives-on-the-environment-and-wellbeing.pdf.

[6] Tahu Kukutai, *The Dynamics of Ethnicity Reporting: Māori in New Zealand: A Discussion Paper Prepared for* Te Puni Kōkiri (Pop. Studies Ctr., Univ. of Waikato, 2003).

[7] *10 Things to Know About Indigenous Peoples*, U.N. Dev. Programme (July 29, 2021), https://stories.undp.org/10-things-we-all-should-know-about-indigenous-people.

[8] Geraldine Duoba, H. Molloy & Jason P. Mika, *Measuring Indigenous Economies: A Tatauranga Umanga Māori Perspective, Symposium on Indigenous Economies*, Te Kāhui Raraunga (Nov. 29-30, 2021).

[9] *Co-Designing Māori Data Governance*, Stats NZ (Feb. 02, 2021), https://data.govt.nz/toolkit/data-governance/maori/; *Iwi Data Needs*, Te Kāhui Raraunga (2019), https://www.kahuiraraunga.io/_files/ugd/b8e45c_499e6dc614cd4aa089fe9344c47701ec.pdf.

for discursive analysis of Indigenous business data. Second, *Tatauranga umanga Māori* and its development between 2012 and 2022 are discussed, including the definition of Māori business, and the strengths and limitations of this framework. Third, the paper discusses three key themes: whether partnering with Māori on data system design is consistent with treaty and Indigenous data sovereignty principles, in what ways Māori enterprise is enabled through improved Māori business data, and whether and how Māori enterprise improves Māori wellbeing.

I

Theoretical Context

A. Te ao Māori—the Māori World View

Te ao Māori refers to the Māori world view, which encompasses the identity, knowledge, values, customs, language, and institutions of the Māori people derived from their cosmological traditions, over 1,000 years of sustained intergenerational usage in Aotearoa, and is constitutive of Māori indigeneity, that is, Māori ways of knowing, being and doing.[10] A key principle of *te ao Māori* is that all things are related, living and nonliving entities, creating an interdependency between human and nonhuman existence. Wellbeing in this frame is a function of maintaining balance between spiritual, human, and ecological societies achieved through the principle of reciprocity.[11] An example of the principle of reciprocity at work in this view of it can be found in a conceptualisation of the Māori economy offered by Rout and colleagues[12] as an 'environmental economy' in which human relations with nature are governed by a spiritual-socioecology.

In Aotearoa New Zealand, Māori are the Indigenous people, the first people to sight and settle the last significant landmass in the world,[13] around 950 AD aboard oceangoing *waka* (canoes) from their ancestral homelands in Eastern Polynesia

[10] Jason P. Mika, Kiri Dell, Jamie Newth & Carla Houkamau, *Manahau: Toward an Indigenous Māori Theory of Value*, 21 Phil. Mgmt. 441 (2022).

[11] Manuka Hēnare, *"Ko te hau tēnā o tō taonga. . . ": The Words of Ranapiri on the Spirit of Gift Exchange and Economy*, 127 J. of the Polynesian Soc'y 451 (2018).

[12] Matthew Rout, Shaun Awatere, Jason P. Mika, John Reid & Matthew Roskruge, *A Māori Approach to Environmental Economics: Te ao tūroa, te ao hurihuri, te ao mārama—The Old World, a Changing World, a World of Light, in* Oxford Res. Encyclopedia of Envtl. Sci. (2020).

[13] Anne Salmond, *Ontological Quarrels: Indigeneity, Exclusion and Citizenship in a Relational World*, 12 Anthropological Theory 112, 115-21 (2012).

known as *Hawaiki*.[14] From a low of just 42,000 people in 1892,[15] the Māori population 130 years later (in 2022) was estimated to be 892,200 (or 17.4 percent of the national population).[16] Māori are a tribally-based ethnic group whose social organisation centres on the principle of *whakapapa*, which refers to genealogical connections between human and nonhuman entities through time and space, which, therefore, carries both spiritual and physical elements.[17] *Whakapapa* as an ontology for organising is evident at varying scales of social aggregation, consisting of *whānau* (family), comprising immediate and extended family members related by *whakapapa*,[18] *hapū* (subtribe) as groups of *whānau* who trace their descent from a common ancestor and their landscapes,[19] and *iwi* (tribe) as aggregations of *hapū* who go by the name of a common ancestor and assert authority over tribal lands.[20] These pre-European forms of tribal organisation still exist,[21] with *iwi* now the dominant form of political and economic organisation as a result of treaty settlements, although pan-tribal and non-kin-based Māori organisations have also emerged as a consequence of urbanisation, and political, social, and religious movements.[22] *Whānau* in practical and policy terms are increasingly seen as vital to Māori wellbeing with *whānau ora* (holistic family wellbeing) a prominent example

[14] *Cf.* Peter Buck, The Coming of the Māori (2d ed. 1949); Ranginui Walker, Ka Whawhai Tonu Matou: Struggle Without End (2d ed. 2004).

[15] Whatarangi Winiata, Affidavit Before the Waitangi Tribunal: Te Wānanga o Raukawa Whakatupu Mātauranga (Dec. 14, 2017), https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_132685011/Wai%202698%2C%20A007.pdf.

[16] *Māori Population Estimates: At 30 June 2022*, Stats NZ (Nov. 17, 2022), https://www.stats.govt.nz/information-releases/maori-population-estimates-at-30-june-2022/#:~:text=At%2030%20June%202022%3A,447%2C800%20females%20identifying%20as%20M%C4%81ori.

[17] Joseph Selwyn Te Rito, *Whakapapa: A Framework for Understanding Identity*, 2 Mai Rev. 1, 10 (2007).

[18] Mason H. Durie, *Māori and the state: Professional and ethical implications for a bicultural public service*, *in* States Services Commission: Proceedings of the Public Service Senior Management Conference 23 (State Services Commission 1993); *see* Ranginui Walker, The social adjustment of the Maori to urban living in Auckland (1970) (Ph.D. dissertation, University of Auckland) (on file with the University of Auckland Libraries Learning Services).

[19] Whatarangi Winiata, *Hapu and iwi resources and their quantification*, *in* 3 Report of the Royal Comm'n on Soc. Policy 789, 789 (Ivan Richardson et al. eds., 1988).

[20] Jason P. Mika, Graham H. Smith, Annemarie Gillies & Fiona Wiremu, *Unfolding tensions within post-settlement governance and tribal economies in Aotearoa New Zealand*, 13 J. of Enterprising Cmtys: People & Places in the Glob. Econ. 296 (2019).

[21] Angela Ballara, Iwi: The Dynamics of Māori Tribal Organisation from c. 1769 to c. 1945 (1998).

[22] Jason P. Mika & John G. O'Sullivan, *A Māori approach to management: Contrasting traditional and modern Māori management practices in Aotearoa New Zealand*, 20 J. Mgmt. & Org. 648 (2014).

of this, but the theoretical evolution of *whānau* as a form of cultural organisation is still developing.[23]

Māori enterprise during the early period of colonisation (1835-1860)[24] showed a remarkable form of Indigenous innovation,[25] which enabled Māori to continue their communal forms of production while successfully adapting to European capitalism and introduced technologies.[26] Frederick and Henry[27] highlight the propensity for innovation among Māori entrepreneurs, while Sciascia et al.[28] point to the willingness of collectively owned Māori agribusiness enterprises to consider new technologies in achieving their aspirations for balance between commercial and cultural imperatives.[29] The implication is that provided Māori retain power, authority, and control over the way in which new technologies are deployed,[30] technological change is likely to be as astutely assessed by Māori now as it was by their forebears between 1769 and 1850 when rangatira (chiefs) were the 'captains of industry' in the fledgling colonial state of New Zealand.[31]

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[23] *See generally* Matthew Rout et al., *Te niho o te taniwha teeth of the taniwha: Exploring present-future pathways for whānau and hapū in Māori economies of wellbeing*, Ngā Pae o te Māramatanga (June 30, 2022), https://www.maramatanga.ac.nz/media/7091/download.

[24] *Cf.* Hazel Petrie, Chiefs of industry: Māori tribal enterprise in early colonial New Zealand (2006).

[25] Fonda Walters & John Takamura, *The Decolonized Quadruple Bottom Line: A Framework for Developing Indigenous Innovation*, 30 Wicazo Sa Rev. 77 (2015).

[26] *See* William Carl Schaniel, The Maori and the Economic Frontier: An Economic History of the Maori of New Zealand, 1769-1840 (1985) (Ph.D. dissertation, University of Tennessee) (National Library of Australia).

[27] Howard H. Frederick & Ella Henry, *Innovation and Entrepreneurship Among Pākehā and Māori in New Zealand*, *in* Ethnic Entrepreneurship: Structure and Process 115 (Curt Stiles & Craig Galbraith eds., 2004).

[28] *See* Acushla Sciascia et al., He whenua tipu: Transformation of Māori agribusiness and the Fourth Industrial Revolution (4IR) report (2019).

[29] Admiral Munyaradzi Manganda et al., How indigenous entrepreneurs negotiate cultural and commercial imperatives: insights from Aotearoa New Zealand (July 9, 2022) (unpublished manuscript) (on file with the Journal of Enterprising Communities: People and Places in the Global Economy), https://doi.org/10.1108/JEC-01-2022-0017.

[30] Mason H. Durie, Te Mana Te Kawanatanga: The Politics of Māori Self-Determination (1998).

[31] Robert S. Merrill, *Some Social and Cultural Influences on Economic Growth: The Case of the Maori*, 14 J. of Econ. Hist. 401 (1954); Jason P. Mika et al., *Indigenous Environmental Defenders in Aotearoa New Zealand: Ihumātao and Ōroua River*, 18 AlterNative: An Int'l J. of Indigenous Peoples 277 (2022).

Today, a growing Māori population and an expanding Māori labour force play a significant part in the growth of the national economy[32] and of tribal assets.[33] Measuring the contribution of Māori to the economy is, however, problematic. Stats NZ,[34] and other government agencies, including Te Puni Kōkiri (Ministry of Māori Development)[35] and Te Pūtea Matua (Reserve Bank of New Zealand),[36] have been engaged in ongoing efforts to measure the Māori economy, however, data gaps and inconsistencies in measurement persist.[37] In early 2021, for example, Te Pūtea Matua published research on the Māori economy using 2018 data.[38] In 2020, Te Puni Kōkiri published a report on Māori in business by linking Māori ethnicity with business ownership using 2019 data,[39] which was recently updated.[40] And earlier, the Ministry of Business, Innovation and Employment (MBIE) published a report on Māori running their own businesses.[41] Clearly, better quality Māori business data is a necessary basis on which to formulate economic policy inclusive of and beneficial for Māori.[42] The function of better Māori business data though extends beyond making mainstream economic policy more responsive to Māori. Such data has the potential to provide an evidentiary base for Indigenous theorising of enterprise and economy using *kaupapa Māori* (Māori philosophy), *mātauranga Māori* (Māori knowledge), *tikanga Māori* (Māori culture), *reo Māori* (Māori language), and *wawata Māori* (Māori aspirations).[43] Examples include manahau as

[32] Rsrv. Bank of N.Z., Te Ōhanga Māori 2018 (2018).

[33] TDB Advisory, Iwi Investment Report 2019 (2020), www.tdb.co.nz/…/TDB-Advisory-Iwi-Investment-Report-2019.pdf.

[34] Bishop et al., *supra* note 1.

[35] B. Gordon, *A Definition of Māori Business: An Internal Discussion Paper*, Ministry of Māori Dev. (1996).

[36] Adrian Orr, Governor, Reserve Bank of New Zealand, Speech at Canterbury Employers' Chamber of Commerce: Aiming for great and best for Te Pūtea Matua (Feb. 21, 2020).

[37] Jason P. Mika, Joanne Bensemann & Nick Fahey, *What is a Māori business? A study in the identity of indigenous enterprise*, *in* Austl. & N.Z. Acad. Mgmt., Under New Management: Innovating for Sustainable and Just Futures 244 (Lisa Bradley ed., 2016).

[38] Mika & O'Sullivan, *supra* note 22.

[39] *Te Matapaeroa 2019 - looking toward the horizon: Some insights into Māori in business*, Te Puni Kōkiri & Nicholson Consulting (2019), www.tpk.govt.nz/…/te-matapaeroa-2019.

[40] *Te Matapaeroa 2020: More insights into pakihi Māori*, Te Puni Kōkiri (2022), https://www.tpk.govt.nz/documents/download/documents-2369-A/Te%20Matapaeroa%202020%20narrative%20report.pdf.

[41] Ministry Bus. Innovation & Emp., Māori in Business: A report on Māori running their own businesses (Dec. 2014).

[42] Jason P. Mika, Nicolas Fahey & Joanne Bensemann, *What counts as an indigenous enterprise? Evidence from Aotearoa New Zealand*, 13 J. Enterprising Cmtys.: People Places Glob. Econ. 372 (2019).

[43] Mika et al., *supra* note 31.

a Māori theory of value in entrepreneurship, which builds on Henry's articulation of an economy of *mana*;[44] *tauutuutu* as a theory of reciprocity explicating the basis for and the benefits of enterprises escalating reinvestments in their environments;[45] and He Ara Wairoa as a framework for Māori wellbeing used in the Treasury's analysis of intergenerational wellbeing alongside conventional approaches such as the Living Standards Framework.[46]

B. Treaty of Waitangi and Public Policy

Whenever public policy is contemplated in Aotearoa New Zealand, it must have regard to the Treaty of Waitangi whose text was also written in the Māori language and is referred to as *te Tiriti o Waitangi*.[47] This obligation arises because the treaty is recognised as New Zealand's founding constitutional document, signed 6 February 1840 at Waitangi, in the Bay of Islands, by Māori chiefs and representatives of the British monarch, Queen Victoria.[48] While not carrying the force of domestic law,[49] the treaty is nonetheless relied on by the Crown as Māori having ceded sovereignty over Aotearoa, thus allowing for the formation of a Westminster style parliament in 1854, and British colonisation of the newly recognised state as a dominion of the British Empire.[50] For Māori, *te Tiriti o Waitangi* preserved their *tino rangatiratanga* (self-determination) and *mana motuhake* (tribal autonomy) over their peoples, tribal estates, and *taonga* (cultural treasures).[51] Growing demand for land among European settlers from 1840 and

[44] Jason P. Mika, Kiri Dell, Jamie Newth & Carla Houkamau, *Manahau: Toward an Indigenous Māori theory of value*, 21 Phil. Management 441 (2022).

[45] John Reid, *Adopting Māori wellbeing ethics to improve Treasury budgeting processes*, Parliamentary Comm'r for Env't (Oct. 13, 2021), pce.parliament.nz/…/reid-adopting-ma-ori-wellbeing-ethics-to-improve-treasury-budgeting-processes-pdf-12mb.pdf.

[46] Chelsey Reid & Phil Evans, *Trends in Māori wellbeing*, N.Z. Treasury (Dec. 12, 2022), https://www.treasury.govt.nz/sites/default/files/2022-12/ap22-02.pdf.

[47] Cabinet Office Circular on Te Tiriti o Waitangi / Treaty of Waitangi Guidance (Oct. 22, 2019) (on file with Cabinet Office of Wellington, New Zealand).

[48] *Cf.* Claudia Orange, The Treaty of Waitangi (Allen & Unwin 1987).

[49] *Cf.* Matthew Palmer, The Treaty of Waitangi in New Zealand's law and constitution (2008).

[50] Mika et al., *supra* note 43.

[51] Craig Coxhead et al., *He Whakapūtanga me te Tiriti: The Declaration and the Treaty: The Report on Stage 1 of the Te Paparahi o Te Raki Inquiry*, Waitangi Tribunal Rep. (2014), https://forms.justice.govt.nz/search/Documents/WT/wt_DOC_85648980/Te%20RakiW_1.pdf.; Craig Coxhead et al., *Tino Rangatiratanga Me Te Kāwanatanga: The Report on Stage 2 of the Te Paparahi o Te Raki Inquiry: Part 1*, Waitangi Tribunal Rep. (2022); Joe V. Williams et al., *Ko Aotearoa Tēnei: A Report into Claims Concerning New Zealand Law and Policy Affecting Māori Culture and Identity* (2011).

Māori resistance to land alienation, however, led to the New Zealand wars in the 1860s, culminating in the confiscation of large tracts of Māori land, the suppression of Māori autonomy, and official nullification of the treaty.[52] The long struggle by Māori for justice and the return of Māori land, eventually resulted in the formation of the Waitangi Tribunal under the Treaty of Waitangi Act 1975,[53] whose function is to inquire into claims of Crown breaches of its promises to Māori under the treaty. A government policy of treaty settlements was later established where the Crown could compensate Māori for proven claims.[54] Under the principles of the treaty, data is regarded as a *taonga*, which carries inherent rights of Indigenous ownership and use, and obligations on the Crown for the protection of these rights and interests.[55]

The reach of te Tiriti o Waitangi in public policy extends to the role of Stats NZ. In Aotearoa, the Government Statistician, a position which Mark Sowden presently occupies, takes seriously his legal mandate under the Public Service Act 2020 as the Government Chief Data Steward (GCDS) to "support the use of data as a resource across government to help deliver better services to New Zealanders."[56] Furthermore, under the Data and Statistics Act 2022, the Government Statistician in performing his functions must recognise and respect the Crown's responsibility to "give effect to the principles of te Tiriti o Waitangi/the Treaty of Waitangi" and "build... the capability and capacity of Statistics New Zealand to... understand te Tiriti o Waitangi/the Treaty of Waitangi… and engage with Māori."[57] The complexity of giving effect to the Treaty of Waitangi in public policy cannot be underestimated.[58] This is because it entails a balance between the neutrality of

[52] Mika, *supra* note 50.

[53] The Waitangi Tribunal: Te Roopu Whakamana i te Tiriti o Waitangi (Janine Hayward & Nicola R. Wheen eds., 2015).

[54] Treaty of Waitangi Settlements (Janine Hayward & Nicola R. Wheen eds., 2012).

[55] *See* Mika, Dell, Newth & Houkamau, *supra* note 44.

[56] *Co-designing Māori data governance*, Stats NZ (2021), https://data.govt.nz/toolkit/data-governance/maori/.

[57] *Id.* at 12.

[58] Mark Barrett & Kim Connolly-Stone, *The Treaty of Waitangi and Social Policy*, 11 Soc. Pol. J. N.Z. 1 (1998); *see* Mika & O'Sullivan, *supra* note 38; *see generally* Veronica M. H. Tawhai & Katarina Gray-Sharp, Always Speaking: The Treaty of Waitangi and Public Policy (2011).

the public service,[59] the prerogative of government ministers,[60] Māori rights and interests,[61] and detractors of the treaty who see Māori treaty rights as unjustified.[62]

II

Tatauranga umanga Māori—Māori Business Statistics

A. Defining Māori Business

Stats NZ has been involved in discussions about the definition of Māori business since the early 1990s.[63] Until recently, little progress had been made in reaching agreement on how a Māori business should be defined.[64] Stats NZ's consultation in 2012[65] confirmed Māori authority as the initial definition of Māori business for statistical purposes.[66] This consultation led to the first publication in 2014 of Tatauranga umanga Māori, which translates as Māori business statistics.[67] A Māori authority is defined by its role in acting as a trustee of communally owned Māori property, which, according to Inland Revenue,[68] comprises eligible entities such as Māori land trusts, certain statutory Māori organisations, and treaty settlement entities.

Early consultation also identified that only reporting on Māori authorities did not meet the information needs of Māori small-to-medium enterprises (SMEs) and, therefore, the definition for Māori business needed clarifying.[69] A Māori business identifier question was added to the Business Operations Survey in 2015,[70] and

[59] Jonathan Boston et al., Public Management: The New Zealand Model (1996).

[60] *See* TDB Advisory, *supra* note 33.

[61] Michael Belgrave, *Beyond the Treaty of Waitangi: Māori Tribal Aspirations in an Era of Reform, 1984-2014*, 49 J. Pac. Hist. 193 (2014); Margaret Mutu, *"To Honour the Treaty, We Must First Settle Colonisation" (Moana Jackson 2015): The long Road From Colonial Devastation to Balance, Peace, and Harmony*, 49 J. Royal Soc'y N.Z. 4 (2019).

[62] *See* David Round, Truth or treaty? Commonsense questions about the Treaty of Waitangi (1998).

[63] Bishop et al., *supra* note 34.

[64] *See* Mika, Bensemann & Fahey, *supra* note 37.

[65] Stats NZ, *supra* note 31.

[66] *Tatauranga Umanga Māori: Summary of 2012 consultation*, Stats NZ (2012), www.stats.govt.nz.

[67] *Tatauranga umanga Māori 2014: Statistics on Māori authorities*, Stats NZ (2014), www.stats.govt.nz.

[68] *Becoming a Māori authority*, Inland Revenue 3 (Dec. 2017).

[69] *Id.*

[70] *See* Orange, *supra* note 48.

2016 was the first year Stats NZ reported Māori SME statistics.[71] *Tatauranga umanga Māori* has improved Stats NZ's collection and publication of Māori business statistics.[72] In 2022, for instance, a quarterly publication of *Tatauranga umanga Māori* was started, covering Māori authorities and related businesses.[73]

B. Tatauranga umanga Māori Data

Tatauranga umanga Māori provides insight into the contribution that Māori authorities and other Māori-owned businesses (for example, Māori SMEs, larger Māori businesses, and Māori tourism businesses) make to the national economy. *Tatauranga umanga Māori* presents information on Māori business demographics—counts of businesses and employees by industry; the financial performance and position of Māori businesses; turnover rates and filled jobs; exports of goods; land use, livestock numbers and farm practices on Māori farms; and selected business activities. Table 1 shows the data outputs produced in *Tatauranga umanga Māori* and their sources.

There is no specific data collection on Māori businesses; rather, *Tatauranga umanga Māori* uses existing Stats NZ data collections (surveys and administrative data sources) to present information on two subsets of Māori businesses—Māori authorities and Māori SMEs and their contribution to the national economy. Māori SMEs in the *Tatauranga umanga Māori* population are businesses with at least one and fewer than 100 employees, and where the business owner(s) define it as a Māori business.[74] The Māori business population for *Tatauranga umanga Māori* has historically been collated from three sources. First, Māori authorities are identified through a tax code, which Inland Revenue provides to Stats NZ. Second, Māori SMEs and Māori tourism businesses are identified through their affiliation with Māori organisations that agreed to provide Stats NZ with their membership lists. And third, Māori businesses can also self-identify as such in Stats NZ's Business Operations Survey.

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[71] *Tatauranga umanga Māori 2016: Statistics on Māori authorities*, Stats NZ (2016).

[72] *Tatauranga umanga Māori*, Stats NZ (2012, 2014, 2016, 2019, 2020, 2022).

[73] *Tatauranga umanga Māori – Statistics on Māori businesses: December 2021 quarter*, Stats NZ (2022), www.stats.govt.nz/. . . /tatauranga-umanga-maori-statistics-on-maori-businesses-december-2021-quarter/.

[74] *Id.*

TABLE 1
MĀORI BUSINESS STATISTICS IN *TATAURANGA UMANGA MĀORI* AND THEIR SOURCES

Data Source	Data Output
Annual Publication	
Business demography (administrative data source, mainly)	Number of businesses Number of employees
Annual enterprise survey (survey and administrative data)	Financial information
Linked employee-employer data (administrative data source)	Worker turnover rates Filled jobs
Overseas merchandise trade (administrative data)	Exports of goods
Agriculture survey (survey)	Land use Livestock Numbers Farm practices
Business Operations Survey (survey)	Exporting information Innovation rates Other selected business activities
Quarterly publication (Māori authorities and related businesses)	
Business financial data (administrative data source)	Sales Purchases
Business employment data (administrative data source)	Filled jobs Total earnings
Over seas merchandise trade (administrative data)	Export of goods

C. Limitations of Tatauranga umanga Māori

Several limitations are apparent in producing *Tatauranga umanga Māori*, illustrating the complexities involved in measuring Māori business activity. For example, the population used to produce Tatauranga umanga Māori does not cover all Māori businesses. *Tatauranga umanga Māori* has good coverage of Māori authorities, as these are identified through tax data, but limited coverage of Māori SMEs, and little or no coverage of other types of Māori businesses, for example Māori sole traders. Thus, the current population coverage restricts the ability to publish more granular data about Māori businesses, particularly by region, and

by *iwi*.[75] Until very recently, the lack of a standard definition for Māori business meant that Stats NZ did not have a clear target population. This also means that government and other entities use different estimates to determine the economic contribution of Māori businesses.

To improve the coverage of Māori business statistics and insights, Stats NZ partnered with colleagues at MBIE to add Māori business identifier questions to the New Zealand Business Number (NZBN) register.[76] The NZBN provides a unique identifier for New Zealand businesses, from sole traders to companies. Some businesses, for example registered companies, are automatically assigned an NZBN. Other types of businesses need to apply for one. An NZBN is compulsory for eligibility to claim certain types of government support, for example Covid-19 subsidies for businesses. An identifier for Māori businesses in the NZBN register will aid in the identification of Māori businesses and provide a more accurate and reliable understanding of the contribution that Māori businesses make to the economy. Officials expect that it will take at least two years for the introduction of Māori business identifier questions in the NZBN to significantly impact Tatauranga umanga Māori statistics. Meanwhile, officials are exploring other options for improving population coverage, such as including identifier questions in more Stats NZ surveys and obtaining regional third-party lists. There is no one source that will identify all Māori businesses, but more can be done to improve the coverage of these statistics. As new sources of population information are added to *Tatauranga umanga Māori*, the implications for existing time series will need to be carefully assessed.

The low coverage of Māori businesses in the Tatauranga umanga Māori release is one of the key challenges Stats NZ faces in measuring the contribution Māori businesses make to the economy and to Māori wellbeing. In producing Te Matapaeroa, Nicholson Consulting used Stats NZ's Integrated Data Infrastructure (IDI) to match ethnicity with business ownership.[77] Using this method, they

[75] *Tatauranga umanga Māori: 2021 pūrongo matatini - Statistics on Māori businesses: 2021 technical report*, Stats NZ (2022), www.stats.govt.nz.

[76] *Māori businesses now able to identify themselves on NZBN register*, N.Z. Bus. No. (May 12, 2021), www.nzbn.govt.nz/. . . /maori-businesses-now-able-to-identify-themselves-on-nzbn-register/.

[77] *Te Matapaeroa 2019 - looking toward the horizon: Some insights into Māori in business*, Te Puni Kōkiri & Nicholson Consulting (2019), www.tpk.govt.nz/. . . /te-matapaeroa-2019.

estimated that in 2020 there were more than 23,000 Māori businesses, comprising Māori authorities and other Māori-owned companies, and 38,000 Māori sole traders.[78] By contrast, Stats NZ reported on approximately 2,000 Māori businesses using the Tatauranga umanga Māori dataset.[79] The implication is that the economic contribution of Māori businesses is understated in Tatauranga umanga Māori. Additionally, users of Tatauranga umanga Māori request Māori business statistics by region, but due to low coverage and confidentiality issues Stats NZ is unable to produce this information, or the data is provided with limitations.[80]

The current method of compiling a population of Māori businesses for Tatauranga umanga Māori using a variety of sources has known weaknesses. Stats NZ has been unsuccessful in regularly obtaining up-to-date lists from third parties. While Stats NZ has aimed to build reciprocal relationships with Māori organisations and Māori business networks across Aotearoa, using third-party lists of Māori businesses for the population of Tatauranga umanga Māori is unsustainable and lacks statistical rigour to be a reliable source. A further issue that impacts the quality of Māori business statistics is survey samples. Surveys used as inputs to Tatauranga umanga Māori have not been designed explicitly to measure Māori businesses. Rather, these surveys are designed to accurately produce national estimates, or to give estimates by industry, geographical region, or business size. The Business Operations Survey, for example, only covers businesses with six or more employees, limiting its ability to provide comprehensive statistics on Māori businesses.

III

Discussion

When assessed against principles of Indigenous data sovereignty,[81] the main question that arises is how does the process and outcome of a new definition of Māori business advance Indigenous aspirations for self-determination and

[78] *Te Matapaeroa 2020: More insights into pakihi Māori*, Te Puni Kōkiri (2022), https://www.tpk.govt.nz/documents/download/documents-2369-A/Te%20Matapaeroa%202020%20narrative%20report.pdf.

[79] Stats NZ, *supra* note 74.

[80] Jason P. Mika et al., *Māori business in Manawatū-Whanganui: A brief update*, Cent. Econ. Dev. Agency (2021), https://ceda.nz/wp-content/themes/ceda/uploads//Maori-Economic-Report-english.pdf.

[81] *See* Indigenous data sovereignty: Toward an agenda (Tahu Kukutai & John Taylor eds., 2016).

wellbeing.[82] Three subsidiary questions provide a useful segue for discursive analysis of relevant matters of Indigenous business theory and practice. First, how is Māori control over Māori data improved? This question is addressed by discussing collaborative work with Māori on the definition in relation to Treaty of Waitangi and Indigenous data sovereignty principles. Second, how is Māori enterprise enabled by the definition? The focus here is on how better Māori business data provides evidence for innovative forms of culturally aligned enterprise assistance such as Indigenous entrepreneurial ecosystems.[83] Third, how is Māori wellbeing improved? This aspect concerns measurement of the distributional benefits of Māori enterprise according to Māori conceptualisations of economy and wellbeing.[84]

A. Indigenous Data Sovereignty and Māori Business Statistics

The principle of Indigenous control over Indigenous data[85] directly conflicts with government expectations that Indigenous peoples supply official data as an implied condition of their citizenship and societal participation.[86] In this context, official data is problematised as historically omitting Indigenous people, categorising data on them for assimilatory purposes, and misrecognising Indigenous identities and aspirations. Kukutai and Walter propose principles to alleviate these problematics to achieve what they call 'statistical functionality' (the use and usefulness) of Indigenous official data.[87] They encourage, for instance, agencies to recognise Indigenous constructions of spatiality so that social aggregations (tribe-nontribe, rural-urban) meaningful to Indigenous peoples are not impeded through inflexible data classifications and inappropriate collection methods. Moreover, they advocate for Indigenous people to be seen through Indigenous eyes by unmasking cultural distinctions and elevating Indigenous rights. Such approaches are diminished by the expediency of classifying Indigenous peoples as ethnic minorities, which glosses over the granularity of

[82] *See* Mika, Fahey & Bensemann, *supra* note 42.

[83] Jason P. Mika, Christian Felzensztein, Alexei Tretiakov & Wayne G. Macpherson, *Indigenous entrepreneurial ecosystems: a comparison of Mapuche entrepreneurship in Chile and Māori entrepreneurship in Aotearoa New Zealand*, J. Mgmt. & Org. 1 (2022).

[84] Mika, *supra* note 5.

[85] Stephanie Carroll et al., *The CARE Principles for Indigenous Data Governance*, 19 Data Sci. J. 43 (2020).

[86] *See generally supra* note 58.

[87] *Id.*

indigeneity and its myriad identities, languages, and cultures, and the power imbalances between nation-states and their Indigenous nations.[88]

In 2021, as part of its *mana ōrite* (equity and equality) work programme, Stats NZ and the Data Iwi Leaders Group (DILG) engaged in the co-design of a Māori data governance (MDG) model "that reflects Māori needs and interests in data."[89] As a partner in this work, Te Kāhui Raraunga agreed that Stats NZ "does play a critical role as major producers of official statistics, including data for or by Māori; data about Māori; and any data that Māori have a connection to"—but specified that it does not have a governance role.[90] For Te Kāhui Raraunga, "**data is a taonga**" (emphasis in original).[91] They further explain that data are "closely interconnected with our mātauranga [knowledge] and our ways of being . . . and continues to be how we have continued our consciousness as Māori across time and distance."[92] Te Kāhui Raraunga accentuate a *hapū* centric view of *te Tiriti o Waitangi* as the basis for Māori-Crown relationships, with iwi tending to be co-opted by the Crown, and colonisation an historical process that violently separated Māori people from Māori data.[93] Nonetheless, the MDG model is being developed as a set of principles to guide cohesive, system-wide change in data systems that draw on *te ao Māori* insights and innovation.[94] One of their recommendations is for the establishment of a Māori chief data steward, a structural innovation that has precedence in Māori units in other government departments.[95]

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[88] Darin Bishop, *Indigenous Peoples and the Official Statistics Systems in Aotearoa/New Zealand*, *in* Indigenous Data Sovereignty: Toward an Agenda 291 (Tahu Kukutai & John Taylor eds., 2016); Fiona McCormack, *Levels of Indigeneity: The Māori and Neoliberalism*, 17 J. Royal Anthropological Inst. 281 (2011); Anne Salmond, *Ontological Quarrels: Indigeneity, Exclusion and Citizenship in a Relational World*, 12 Anthropological Theory 112, 115-21 (2012).

[89] Stats NZ, *supra* note 56.

[90] *Iwi Data Needs*, Te Kāhui Raraunga (2022), www.kahuiraraunga.io.

[91] *Id.*

[92] *Id.*

[93] Daniel Hikuroa, *Mātauranga Māori — the ūkaipō of knowledge in New Zealand*, 47 J. Royal Soc. N.Z. 5 (2017); Hirini Moko Mead, *Understanding mātauranga Māori*, *in* Conversations on *mātauranga Māori* 9-14 (Taiarahia Black, Daryn Bean, Waireka Collings & Whitney Nuku eds., 2012); *see* Mutu, *supra* note 61.

[94] *Tawhiti nuku: Māori data governance co-design outcomes report, January 2021*, Te Kāhui Raraunga (2021), https://www.kahuiraraunga.io/tawhitinuku.

[95] Mason Harold Durie, *Māori and the state: Professional and ethical implications for a bicultural public service*, *in* States Services Commission: Proceedings of the Public Service Senior Management Conference 23(State Services Commission 1993); Kim Workman, N.Z. Ministry of Health, Biculturalism in the Public Service - Revisiting the Kaupapa (Apr. 27, 1995).

In the context of data system co-design with Māori, in March 2021, Stats NZ initiated a review of its framework for Māori business statistics, that is, *Tatauranga umanga Māori*.[96] The intention was to improve its definition of Māori business, a goal that had been signalled when work on *Tatauranga umanga Māori* began in 2012.[97] By April 2021, Stats NZ had convened a working group to assist with the review. The group comprised Māori from academia, industry, business, and enterprise assistance providers, collaborating with a team of officials from Stats NZ and other agencies. The findings of the review were released in a discussion document in June 2022.[98] The report contained two important proposals, the first being a new definition:

> A Māori business is a business that is owned by a person or people who have Māori whakapapa, and a representative of that business self-identifies the business as Māori.[99]

Second, was a proposal for the definition to be the centrepiece of a mandated data standard that would function as a comprehensive guide for agencies in their collection and publication of Māori business statistics. Public service departments and departmental agencies must use mandated data standards when collecting and sharing data on a particular topic. The Government Chief Data Steward has the power to make data standards mandatory. Initially broached as a mandated standard, agencies were instead given the option of working toward the standard, allowing them time for capability development and system change. A data standard for Māori business is expected to improve the quality of the data Stats NZ produces about Māori businesses. The standard was released in July 2022.[100] All parties—Māori and officials, and those consulted more widely, expect that a consistent approach to Māori business statistics will more readily show the contribution of Māori enterprise to the Māori and New Zealand economies.[101]

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[96] *Working group terms of reference: Māori Business Definition*, Stats NZ (2021), https://www.stats.govt.nz/reports/working-group-terms-of-reference-maori-business-definition/.

[97] *See* Mika, Bensemann & Fahey, *supra* note 37.

[98] Stats NZ, *supra* note 96.

[99] *Id.* at 5.

[100] *Id.*

[101] *See* Te Puni Kōkiri, *supra* note 40, at 372-90.

B. Treaty of Waitangi and Māori Business Statistics

A fundamental principle of te Tiriti o Waitangi is partnership between Māori and the Crown.[102] According to judicial and tribunal decisions, the partnership principle is intimated when the treaty partners (Māori and the Crown) act in good faith, with reasonableness toward each other, and Māori are consulted on policy that affects them without being disadvantaged by the process.[103] The way the working group on the definition of Māori business was formed and the review was conducted could be construed as consistent with the treaty principle of partnership. While not representative of tribal authorities, whose *mana* (power and authority) vests in *iwi* and *hapū*,[104] Māori participants were, nonetheless, acknowledged as *tāngata whenua*. Other signs of the partnership principle at work were the resourcing of Māori participation; the engagement of appropriately skilled officials who were on hand to hear and act on the *mātauranga* they received; the leadership of the process by a Māori manager at Stats NZ coupled with routine and active use of *te reo* (Māori language) and *tikanga* (Māori culture) in the process; and deference to a project governance group that includes Māori business representation and the *Kaihautū* (senior Māori leader) for Stats NZ. The result was a general feeling of camaraderie where the division between officials and non-officials seemed to evaporate in the movement toward a common cause—better Māori business statistics for improved Māori wellbeing. The usual power imbalances between Māori and the Crown were decidedly less visible in this process. There are, of course, broader questions about treaty rights, responsibilities, and obligations surrounding Māori participation in the work of Stats NZ and Māori ownership and control over Māori data, which go beyond the working group and its task.[105] In this case, however, the collaborative work with Māori on the definition of Māori business and changes to *Tatauranga umanga Māori* shows that ethical, inclusive, and culturally appropriate processes for data design and use are possible,

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[102] Coxhead et al., *supra* note 51; Nan Seuffert, *Nation as Partnership: Law, Race, and Gender in Aotearoa New Zealand's Treaty Settlements*, 39 L. & Soc'y Rev. 485, 485-526 (2005).

[103] Frances Hancock & Kirsty Grover, *He tirohanga ō kawa ki te Tiriti o Waitangi: A Guide to the Principles of the Treaty of Waitangi as Expressed by the Courts and the Waitangi Tribunal*, Te Puni Kōkiri (2001); Janine Hayward, *Principles of the Treaty of Waitangi – ngā mātāpono o te Tiriti o Waitangi*, Te Ara - The Encyclopedia of N.Z. (June 20, 2012); *see*, Mika et al. (2022), *supra* note 31.

[104] *See* Mika et al. (2019), *supra* note 20.

[105] *Crown–Māori Engagement & Statistical Information Needs*, Stats NZ (2015), www.stats.govt.nz.

consistent with the *Ngā Tikanga Paihere* framework developed in 2020 for such purposes.[106]

C. Enabling Māori Enterprise Through Improved Business Statistics

On the question of enablement of Māori enterprise, discourse typically focuses on the efficacy of mainstream providers of enterprise assistance and their ability to respond effectively and appropriately to the needs of Māori enterprises because the majority of public funding for this purpose is channelled through such organisations, which include New Zealand Trade and Enterprise, Tourism New Zealand, Callaghan Innovation, and MBIE.[107] The fortunes of Māori enterprise are also subject to oscillating support for Māori providers of enterprise assistance, with Poutama Trust and Māori Women's Development Incorporated two long-standing examples. These are providers who offer culturally aligned enterprise assistance that not only seek to meet the business needs of Māori enterprise owners, but reinforce their identity as Māori and aspirations for self-determination and wellbeing.[108] Shoring up public support for Māori and mainstream providers that target Māori enterprise would be assisted through quality evaluation of the uptake and efficacy of their enterprise assistance, but the use of sophisticated evaluative methods is presently negated by the difficulty in accessing reliable and comprehensive Māori business statistics.[109]. Quality evaluation should become decidedly more possible as *Tatauranga umanga Māori* evolves.

Meanwhile, Silicon Valley as a unique environment for the creation of high-value entrepreneurial firms has attracted scholars to wonder whether the notion of an entrepreneurial ecosystem might have relevance for Indigenous firms.[110] Indigenous entrepreneurial ecosystems encompass the totality of enterprise assistance within cultural, institutional, and geographical boundaries and have at their core the indigeneity and relationality of the actors within, that is, the

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[106] *Ngā tikanga paihere: A framework guiding ethical and culturally appropriate data use*, Stats NZ (2020), data.govt.nz/…/Nga-Tikanga-Paihere-Guidelines-December-2020.pdf.

[107] *See* Mika, Bensemann & Fahey, *supra* note 37.

[108] Lorraine Warren, Jason P. Mika & Farah Palmer, *How does enterprise assistance support Māori entrepreneurs? An identity approach*, 23 J. Mgmt. & Org. (Special Issue) 873, 873-85 (2017).

[109] Arthur Grimes, Jason P. Mika, Storm Savage & Eru Pomare, *Using Poutama Trust's data to evaluate the success of Poutama's assistance to Māori businesses*, Motu Econ. & Pub. Pol'y Rsch. (2016).

[110] Kiri Dell et al., *Indigenous Entrepreneurial Ecosystems: A New Zealand Perspective*, Acad. of Mgmt. Ann. Meeting Proc. (2017).

Indigenous entrepreneurs and the enterprises they form and dissolve over time.[111] Whether the definition of Māori business is enabling for Māori enterprise in any of these three spheres—Māori and mainstream providers or Indigenous entrepreneurial ecosystems—depends on the extent to which better quality data leads to evidence-based policy supporting Māori entrepreneurial firms—tribal and nontribal. This outcome was an aspiration of the working group, but its realisation awaits increased uptake of associated developments like the Māori business indicator of the NZBN,[112] government-wide propagation of the Māori business data standard, and its parallel use by enterprise assistance providers—Māori and mainstream, and by *iwi*.[113]

D. Māori Business Statistics and Wellbeing

In regard to the connection between Māori business statistics and Māori wellbeing—that is a longer term question that requires longitudinal data collection and analysis on an as yet undefined causality relationship between enterprise and wellbeing.[114] On the enterprise side, both the nature of Māori business and the incompleteness of official data on Māori business are still being worked through, despite the emergence of a new definition of Māori business.[115] On the wellbeing side, for Māori this concept is multidimensional consisting of *wairua* (spirituality), *tīnana* (physicality), *hinengaro* (emotionality), and *whānau* (sociality), as well as being intertemporal in nature.[116] Māori notions of wellbeing are being explored

[111] *Id.*; Jason P. Mika, Christian Felzensztein, Alexei Tretiakov & Wayne G. Macpherson, *Indigenous entrepreneurial ecosystems: a comparison of Mapuche entrepreneurship in Chile and Māori entrepreneurship in Aotearoa New Zealand*, J. Mgmt. & Org. 1, 1-19 (2022).

[112] *Māori businesses now able to identify themselves on NZBN register*, N.Z. Bus. No. (May 12, 2021), www.nzbn.govt.nz/. . . /maori-businesses-now-able-to-identify-themselves-on-nzbn-register/.

[113] Arthur Grimes, Jason P. Mika, Storm Savage & Eru Pomare, *Using Poutama Trust's data to evaluate the success of Poutama's assistance to Māori businesses*, Motu Econ. & Pub. Pol'y Rsch. (2016); Jason P. Mika, *The role of the United Nations Declaration of the Rights of Indigenous Peoples in building indigenous enterprises and economies*, *in* Conversations About Indigenous Rights: The UN Declaration of the Rights of Indigenous People in Aotearoa New Zealand 156 (Selwyn Katene & Rawiri Taonui eds., 2018); *see generally supra* note 9.

[114] Indigenous Wellbeing and Enterprise: Self-Determination and Sustainable Economic Development (Rick Colbourne & Robert B. Anderson eds., 2020); Mika, *supra* note 84; Reid, *supra* note 45.

[115] *See* Mika, Dell, Newth & Houkamau, *supra* note 10; *see also* Mika, Fahey & Bensemann, *supra* note 42.

[116] Fiona Cram, *Measuring Māori Wellbeing: A Commentary*, 3 Mai J. 18 (2014); Mason Harold Durie, *Māori and the state: Professional and ethical implications for a bicultural public service*, *in* States Services

in relation to government policy and practice,[117] but data and systems do not exist to explain its dynamic function for Māori. While the enterprise-wellbeing nexus is a materially significant instrumentality for Māori entrepreneurs,[118] an evidentiary base, which is housed within an Indigenous data infrastructure beyond the pragmatics of *whānau* enterprise is similarly absent.[119] At best, data on Māori business and wellbeing exists in the relationships that Māori enterprises form with Māori people, wider Indigenous networks, and in the tribally administered registers of *iwi* members who also identify as business owners.[120] There are limitations that can be worked on, but the collaboration between an Indigenous people and an official statistics agency shows how this can be done in an inclusive and respectful manner.

Tatauranga umanga Māori focuses specifically on Māori data; that is, data for, from and about Māori and the places with which Māori have a connection.[121] *Tatauranga umanga Māori* conveys positive stories about Indigenous people and provides a balanced perspective of Māori business performance. For example, *Tatauranga umanga Māori* data for 2020, sourced from the Business Operations Survey, showed that nearly 40 percent of Māori authority businesses were fully operational during the 2020 Covid-19 lockdown, almost double the proportion of all New Zealand businesses who were fully operational for the same period. Moreover, in 2020, Māori authorities exported around $755 million worth of goods.[122] *Tatauranga umanga Māori* estimated that in 2021, half of Māori

Commission: Proceedings of the Public Service Senior Management 23 (State Services Commission 1993); Carla Anne Houkamau & Chris G. Sibley, *Māori Cultural Efficacy and Subjective Wellbeing: A Psychological Model and Research Agenda*, 103 Soc. Indicators Rsch. 379 (2011).

[117] Sacha McMeeking et al., *He Ara Waiora: Background Paper on the development and content of He Ara Waiora*, Univ. of Canterbury Libr. (July 2019); *See Iwi Data Needs*, *supra* note 90; The N.Z. Treasury, He Ara Waiora: Brief Overview (2021).

[118] Kiri Dell et al., *Māori Perspectives on Conscious Capitalism*, *in* The Spirit of Capitalism: Contributions of World Religions and Spiritualities 379 (Kiri Dell et al. eds., 2022).

[119] *See generally* Rout, *supra* note 23.

[120] Ella Henry et al., *Indigenous Networks: Broadening Insight into the Role They Play, and Contribution to the Academy*, Acad. of Mgmt. Procs. (July 29, 2020); Jason P. Mika, *Māori Perspectives on the Environment and Wellbeing*, Ace Consulting (Dec. 23, 2021).

[121] *See generally supra* note 9.

[122] *Tatauranga umanga Māori – Statistics on Māori businesses: 2020 (English)*, Stats NZ (2021), www.stats.govt.nz/. . . /tatauranga-umanga-maori-statistics-on-maori-businesses-2020-english.

authorities acted in response to climate change in the previous two years, compared with a third of all New Zealand businesses.[123]

There is an implied association between enterprise activity and wellbeing. The relationship is consistent with the notion of a Māori environmental economy, in which spiritual and socioecological balance between human and nonhuman entities is maintained by principles of reciprocity such as *manahau* and *tauutuutu*, but establishing it empirically is another matter. The hope is that frameworks for official statistics on Māori business activity such as *Tatauranga umanga Māori* and *Te Matapaeroa* might make this more feasible in time.

Conclusion

This paper set out to discuss how the process and outcome of a new definition of Māori business advances Indigenous aspirations for self-determination and wellbeing. The paper was set in the theoretical and material context of *te ao Māori*—the Māori world view, the relationship between Māori and the Crown under the Treaty of Waitangi, and Stats NZ as a key agency of the Crown. Stats NZ has produced Māori business statistics since 2014 under its framework known as *Tatauranga umanga Māori*. In 2021, Stats NZ initiated a review of the definition of Māori business for statistical purposes and did so in collaboration with Māori and other government agencies. The paper found that the provision of accurate, timely and relevant statistics about Māori, *iwi* and *hapū* is fundamental for the Crown and the public sector to meet their Treaty of Waitangi obligations to Māori. *Tatauranga umanga Māori* must also produce statistics that are culturally appropriate and contribute to better outcomes for *iwi* and Māori. Co-developing a Māori business definition with representatives of groups who will either be using the definition or are affected by it has been critical to ensuring the definition is well-received and consistent with Māori perspectives. The co-development process has also enabled Stats NZ to work collaboratively across government and other sectors, helping to contribute to a data system that is cohesive and supports Māori wellbeing.

The process and outcomes of the review of the Māori business definition seem consistent with the treaty principle of partnership and fostering the indigeneity

[123] *Tatauranga umanga Māori – Statistics on Māori businesses: 2021 (English)*, Stats NZ (2022), www.stats.govt.nz/. . . /tatauranga-umanga-maori-statistics-on-maori-businesses-2021-english/.

and instrumentality of Māori enterprise. The extent to which the new definition of Māori business, however, contributes to Māori wellbeing and Indigenous data sovereignty depend on whether and how the new data standard for Māori business is propagated through the official data system and results in effective process and policy outcomes. The imbalance in power between Māori and the Crown, which limits Māori control over Māori data is still to be resolved. Perhaps, there is merit in pursuing the establishment of a Māori chief data steward as *Te Kāhui Raraunga* propose.